DOCTOR OF COUNSELLING PSYCHOLOGY

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THESIS SUBMITTED FOR THE AWARD OF DOCTOR OF COUNSELLING PSYCHOLOGY

CITY UNIVERSITY

DEPARTMENT OF PSYCHOLOGY (SCHOOL OF SOCIAL SCIENCES)

DECEMBER 1998

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Acknowledgements

I should like to acknowledge the support and advice given by my supervisor, the patience of my family, and the generosity of all those who agreed to participate in this research.

Section A
Preface

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The three substantive parts of this thesis represent three aspects of the work of a counselling psychologist, and three elements in my role as a psychologist in the NHS. The first of these parts, in section B, is a piece of quantitative research, the focus of which is the clinical effectiveness of the service provided by the author in a primary care setting. Section C then examines my psychotherapeutic work with a single client in some detail, and finally section D is a critical review of the literature in the area of stress in the workplace, with particular regard to the health service. Two threads link these three parts: the first, as stated above, is that they represent three aspects of my work; the second is that they illustrate three areas of ability required by counselling psychologists, namely research, reflective practice and literature reviewing skills.

The quantitative research consists of an evaluation of a counselling psychology service in primary care which is provided by the author. Clients were monitored at a number of points in time using the Hospital Anxiety and Depression Scale and the Symptom Checklist 90-R. Clients whilst on the waiting list, and clients receiving care from their general practitioner only, constituted the control conditions. The number of visits made by participants to their general practitioners in the six months before and after the study were also monitored. The results and their implications are discussed. The research is prefaced by a review of the literature in the fields of psychotherapy and counselling outcome research, including methodological issues and interventions in diverse settings and by a variety of professional groups.

This part of the thesis combines the need to be a reflective practitioner, monitoring and evaluating one's practice, with the knowledge and skills required for rigorous quantitative research in the field. As NHS resources are increasingly moved towards primary care, so too the need for evidence-based practice increases. The journals Evidence-Based Medicine and Evidence-Based Nursing have now been joined by Evidence-Based Mental Health, and questions are being asked about gaps between research and practice. In the mental health arena, this is seen in the on-going calls in the literature for more studies of the effectiveness or otherwise of counselling in primary care (see for

example Roth and Fonagy 1996). As a supporter of destigmatized, easy-access mental health services located in neighbourhood health centres and surgeries, this author is fully in favour of the move towards primary care, but is also aware of the importance of providing evidence of the benefit of that move. Subjective accounts from clients speak of the benefits of accessibility, but it is clear that quantitative data is also needed by stakeholders. A counselling psychologist should be well placed to do this by virtue of psychological research training in addition to therapeutic skills.

Much attention is given in this research section to methodological issues, and it is suggested that we neglect these issues at our peril. Surprisingly, however, this is exactly what is seen in some of the literature where, for example, the limitations of the randomised controlled trial when applied to the evaluation of psychotherapeutic interventions as opposed to the evaluation of new drugs are given no mention, or the dangers of uncritical acceptance of meta-analytic findings are ignored. Equally, the disadvantages of qualitative approaches are often overlooked in the attempt to find client-friendly research protocols that capture aspects of therapeutic change not easily available for measurement. There should be room for a post-modern plurality of methodologies in a field as complex as this, but both the advantages and disadvantages of each must be recognised and acknowledged. One useful way to look at this is in terms of the balance between internal and external validity that is inherent in particular approaches. At one end of the spectrum are methods, derived from scientific modernism, of studying therapeutic efficacy, such as the randomised controlled trials developed for the pharmaceutical industry, which have high internal validity but questionable application to the real world of psychological practice unless heavily modified to take account, for example, of the role of the mutual responsiveness of client and therapist in therapeutic process and outcome (a good example of such development is seen in Shapiro 1997). At the other extreme are qualitative studies of service effectiveness that may paint a clear and vivid picture of the progress of particular cases but which lack the internal controls necessary for comparison and evaluation. The approach adopted in this study attempts, within the limitations imposed by time and manpower, to combine aspects of the open trial design, which has a waiting list control condition, and the randomised controlled trial, so as to uphold external validity as much as possible whilst maintaining some internal control. The design is quantitative as

mentioned above, in order to provide information to stakeholders that can supplement subjective or anecdotal accounts.

A subsidiary aim of this research was to evaluate and hopefully demonstrate the effectiveness of a counselling psychologist in an NHS clinical psychology role. The author has occupied a clinical psychology senior post for three years and has been involved in (continuing) discussions about the similarities and differences between the two groups of psychologists. The particular service that is the subject of this research was developed and provided by the departmental Director of Clinical Psychology until the author came into post, and, because it is located out of the health authority area, it is a relatively isolated service without easily accessible back-up from community mental health teams or psychiatric services. There was some concern, therefore, over whether a non-clinical psychologist would cope with the range of cases that the general practitioners referred to the service. It is this author's contention, however, that a counselling psychology training and approach is at least as appropriate as a clinical one for this type of service and setting, where an emphasis on helping with developmental transitions and coping with life events and trauma is as important as the assessment and treatment of psychopathology *per se*.

The results of the study indicate that the service in question was indeed clinically effective: clients improved significantly after treatment on the scales used, the numbers of 'cases' decreased significantly, and the number of visits to the general practitioners also dropped. Compared to a control condition, the treated clients did better on all these indicators, but the difference between the two groups was not great enough to show statistical significance at the 0.1% level required in this case by the use of multiple planned t-tests, or in an analysis using MANOVA. An overall Effect Size was calculated: it was greater than zero, showing that the service's interventions were more effective than GP-care, but the magnitude of the effect was not large. These results are discussed in the appropriate section of this thesis.

The case-study that comprises section C of this thesis has been chosen firstly because it provides the opportunity to examine in detail one piece of psychotherapeutic work through the lens of psychodynamic theories. This group of theories is used by this author to reflect on his work and to illuminate the processes that may be taking place, and to provide a theoretical context for what happens in therapy. Counselling

psychologists should be proficient in a number of therapeutic approaches and this author uses cognitive-behavioural methods in much of his work, but a psychodynamic understanding has been found to be of great value too. This is associated with the author's own therapy having been psychoanalytic, and a very influential part in his professional development. Therefore the inclusion of this particular case-study can be seen as a demonstration of competence and understanding in a second treatment mode in addition to the mainly cognitive-behavioural work that is evaluated in section B.

The second reason for the choice of this case-study is that it serves to illustrate the power of counter-transference in the therapeutic relationship in a particularly clear way. This is an area that is often overlooked in psychological and counselling trainings and yet it is one that plays a part in the work of all practitioners and if ignored, may lead to professional abuses. This issue has received increasing attention in the literature recently, and a number of authors have discussed the ways in which the client's and therapist's histories may come together to produce sexual and other exploitation of the client. Russell (1993) uses a variety of theoretical models to explore this area, including psychodynamic, person-centred and personal construct theory, and also follows Foucault in suggesting that psychology, amongst other disciplines, is a mechanism of power in society and that sexuality is a forum or site in which power can be exercised through the acting out of a set of relationships. It is the abuse of that power when certain conditions prevail in the client/therapist dyad that constitutes exploitation for Russell; unlike Rutter (1990) and Masson (1988), who see power in therapy as necessarily abusive, she acknowledges that power can be used in a constructive and enabling way within the therapeutic relationship. One writer who has looked at the potential for the abusive use of power in that relationship in terms of transference and countertransference is Mann (1994, 1995). He focusses specifically on therapeutic work with sexually abused clients, where, he suggests, this issue is seen in greater intensity than in work with other clients although it may always be present. Mann takes the view that understanding the countertransference is a valuable tool provided the therapist can use his or her experience for the benefit of the client. In this case-study I attempt to show how these matters can play a part in what initially may appear to be a relatively straightforward piece of work.

The topic chosen for the critical literature review in section D is stress in the workplace, with particular reference to the health services. This represents a third facet of the author's work, after the provision of a community psychology service and individual psychotherapeutic work; that is the provision of a staff support and consultation service to a general hospital. In addition it represents a third area of ability needed by counselling psychologists, after empirical research skills and reflective practice skills; that is the ability to critically examine the prevailing theories and representations, in this case with regard to organisational levels of activity as well as individual. Indeed it is the targeting of stress interventions almost entirely at the individual employee that is the focus of this review, which aims to show that the literature does contain non-individualized approaches to representing workplace stress although these are not always easy to see amongst the accounts of stress management programmes and other individualistic perspectives.

Psychology, with its historical tendency towards individualised models of behaviour, has at times done a disservice to workers, who invariably function within a social and organisational context that influences their thoughts, feelings and behaviour. Bor and Miller (1991) choose to use a Family-Systems approach in exploring the functioning of internal consultants in hospitals because "a large institution such as a hospital has many similarities to a family insofar as the way problems evolve and can be solved." In this review I attempt to show that there are other non-individualised approaches that can also be employed, particularly in relation to workplace stress.

Finally, the parts of this thesis can be seen as representing different positions in the debate between positivist, empiricist, scientific psychology and the hermeneutic tradition in psychotherapeutic work. Psychodynamic theories, and more recent humanistic and cognitive approaches, have always assumed a meaningful explanation for behaviour in general and psychological distress in particular, but because of the difficulties in subjecting these to the scientific method a hermeneutic approach developed, which sees the forms of meanings produced between client and therapist, or researcher and participant, in their specific historical and cultural context, as being something significant in themselves, and different from the sorts of explanation amenable to science. A number of writers have tried to bridge this gap: Laplanche (1992) takes a Lacanian perspective, suggesting that

psychological work should be seen neither as an attempt to uncover a factual reality nor as the creation of a purely subjective interpretation, but as a third way, an attempt to understand enigmatic fragments of experience; and Power and Brewin (1997) attempt to use the idea of the transformation of meaning as a bridging concept. Nevertheless the tension between the two positions remains, and is perhaps particularly significant for counselling psychology with its historical and philosophical associations with both camps. In this thesis the case-study represents the more hermeneutic approach, and the service outcome research the empiricist scientific approach.

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Section B

An Evaluation of the Clinical Effectiveness of a Counselling Psychology Service in Primary Care

Glossary of Abbreviations used in Section B

BDI	The Beck Depression Inventory, a 21-item measure of depressive cognitions and behaviour.
CBT	Cognitive-Behavioural Therapy.
GHQ	The General Health Questionnaire, a symptom questionnaire available in 12, 28 and 60-item versions.
GP	General Practitioner.
GSI	The Global Severity Index, the main summary measure or score of the SCL-90R.
HAD	The Hospital Anxiety and Depression Scale, a 14-item measure of level of anxiety and depression.
IIP	The Inventory of Interpersonal Problems, a 127-item self-report inventory of the interpersonal domain.
IPT	Interpersonal Therapy.
IPR	Interpersonal Process Recall, a training technique in which the trainee counsellor reviews a tape of a session, with the focus on the process between client and counsellor.
NIMH	The National Institute for Mental Health (USA).
OCD	Obsessional-Compulsive Disorder.
RCT	Randomised Controlled Trial.
SCL-90R	The Symptom Checklist 90R, a 90-item self-report symptom inventory.
SSRI	Selective Serotonin Reuptake Inhibitor, a family of antidepressant medication that affects brain serotonin levels.
wte	Whole-time equivalent.

Section B

An Evaluation of the Clinical Effectiveness of a Counselling Psychology Service in Primary Care

Abstract

Aim

To evaluate the clinical effectiveness of a counselling psychology service in primary care.

Method

Comparison of SCL-90R and HAD scores of a group of clients in treatment with those of a control group receiving GP-only care, at four points in time; and with scores while waiting for treatment. The design combines elements of an open trial with elements of a randomised controlled trial, although full randomisation was not possible in practice. The results are expressed in terms of numbers of cases and effect size, as well as in terms of test scores, in an attempt to indicate levels of clinical as well as statistical significance.

Comparison of number of visits made to general practitioners by participants in each group during the six months before and after treatment.

Results

The results indicate that the service was clinically effective: clients improved significantly after treatment on the scales used, the numbers of 'cases' decreased significantly, and the number of visits to the general practitioners also dropped. Compared to the control condition, the treated clients did better on all these indicators, but the difference between the two groups was not great enough to show statistical significance at the 0.1% level required by the use of multiple planned t-tests, or on MANOVA, although on the major indicators (SCL-90R GSI and HAD Depression and Anxiety) significance was reached at the 5% level. The overall effect size was calculated to be 0.32. As it was

greater than zero, it indicates that the service's interventions were more effective than GP-care, but the magnitude of the effect was in the small to medium range.

Conclusions

The results of the research demonstrate that the counselling psychology service under study was clinically effective. On all indicators used, clients of the service improved over the period of treatment, and did so to a greater extent than patients in the control condition. However the advantage over the control group was not sufficient for statistical significance at the level required, and this is reflected in the relatively moderate effect size.

Introduction

We live in a time of evidence-based practice in the National Health Service. Increasingly, in all fields of NHS clinical provision, the call is for empirical evidence of effectiveness, and funding for services is becoming more and more closely linked to the quantity and quality of that evidence. Mental health services in general, and psychology services in particular, are not exempt from this trend, and whilst psychology has always prided itself on its involvement in and awareness of research, changes in the delivery of services, for example from hospital to community based care, and in the organisation of practitioners, for example from uni-disciplinary departments to multi-disciplinary teams, have thrown up new challenges for those trying to evaluate services. This is in addition to the many obstacles that already exist in the attempt to apply rigorous empirical standards to the measurement of change in mental health.

Geddes et al.(1997) ask why it has proved so difficult to narrow the gap between research and practice in this area, and suggest that the answer may lie in the many and varied factors that influence and determine mental health practice. They list government policy, political values, public demand, the behaviour of general practitioners, the trainings and beliefs of mental health professionals, the lack of communication between different disciplines (and their research journals), and the financial pressures on purchasers and providers of services, as being some of these factors. They go on to suggest that much high quality research has been done, and that with better dissemination (they refer in particular to the launch of the new journal Evidence-Based Mental Health) and a culture change that encourages overcoming professional rivalries and a greater incorporation of patient values into research, it should be possible to move towards more and better evidence based practice in mental health as in other health fields. This is admirable, but unfortunately Geddes et al.gloss over the methodological complexities mentioned at the end of the paragraph above. For example, they imply that only randomised controlled trials constitute good quality research, and make no comment on the compromises so often forced on the external validity of such trials. In evaluating psychotherapeutic interventions in particular, it is vital that there is an awareness of such issues, and much of this thesis is concerned with this.

In the light of all this it is not surprising that there is at present much debate about the place of counselling in primary care, with calls for more evidence of effectiveness at the same time that services proliferate. This debate is itself set within the context of others: what is counselling in the primary care setting? How does a counselling psychology service differ from a counselling or clinical psychology service in primary care? What outcome evidence is there for psychotherapeutic interventions in general as well as in primary care, and what are the best methodologies for obtaining such data? Some of the contributions to these debates are discussed below to the extent to which they relevant to the objectives of this study. It is hoped that this piece of research, although of only one service, provided by one practitioner in one setting, will add to the collective pool of evidence that can be used when addressing some of the debates mentioned above.

Roth and Fonagy (1996) recommend that if counselling services are to be extended in primary care settings, urgent research is needed to examine their efficacy, and this is underlined by the topic being given a chapter to itself (on the insistence of the NHS Executive) in their recent review of psychotherapy research. At the same time they fully acknowledge the difficulties involved in researching this field: the problem of defining treatments; the more acute nature of the disturbances seen; the role therefore of spontaneous remission; the part played by the behaviours, attitudes and skills of the general practitioners who provides the 'normal care' control conditions, and in consequence the difficulty of knowing the extent to which null results reflect a lack of efficacy of the contrast therapy or the beneficial effects of the control treatment. These and other methodological issues are explored and discussed later in this thesis.

Rationale, Aims and Objectives

This is an evaluative study of a counselling psychology service in primary care. Its focus is the clinical effectiveness (i.e. the outcomes in routine practice) of the service, not the efficacy (i.e. the results achieved in research trials) of the approaches used. The aim is to investigate the effectiveness of the interventions offered by comparing test data for treated patients with similar data for patients either waiting for treatment or not treated by the counselling psychologist, and so both contribute to our store of research evidence in this field as stated above and provide data that can be of benefit to the stakeholders and the provider of this particular service. The specific objectives are to measure any changes in scores on the anxiety and depression scales of the Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983), and on the main and subscale indices of the Symptom Checklist 90R (Derogatis 1994), at four points in time and for the two groups of patients; and to explore the impact of the service on patient improvement and well-being using this outcome data and also data on changes in participants usage of their general practitioners. In line with recommended research practice, the sample size, the sub-groups, and the outcome critria were all prospectively defined and specified, and the rationale and methods for the statistical analyses are fully explained, as are all protocol deviations.

There are two hypotheses tested in this study:

Null hypothesis 1
The treatment group will show no improvement after treatment.
Experimental hypothesis 1
The treatment group will show an improvement after treatment.

Null hypothesis 2
The treatment group will not show a greater improvement than the control group.
Experimental hypothesis 2
The treatment group will show a greater improvement than the control group.

These two hypotheses are tested by means of eleven outcome criteria. The first four refer to changes in HAD and SCL-90R scores, over either eight or sixteen weeks, and comparing the treatment group either with itself or with the control group. The next four are identical apart from refering to numbers of cases rather than scores. The next two concern changes in the number of visits to the general practitioners during six month periods, again comparing the treatment group either to itself

before treatment, or to the control group. The final criterion concerns the effect size demonstrated by the data. These eleven criteria represent the five basic measures (HAD and SCL-90R **scores** and **cases** at **eight weeks** post-start of treatment, at **sixteen weeks** post-start of treatment, and **number of visits** to the GPs) used in two ways: as part of an open trial or repeated measures design (i.e. with a waiting list control), and as part of a controlled trial or independent measures design (i.e. with a control group), plus the effect size measure as the eleventh .

The combination of open trial and controlled trial designs was used in order to satisfy the demands of both internal and external validity as much as possible, and the results are expressed in terms of numbers of cases and effect size, as well as in terms of test scores, in an attempt to indicate levels of clinical as well as statistical significance.

A particular point to do with the rationale for this study and its methodology need to be made here, although this is explored further in the discussion section. It may be argued that an evaluative study of the work of a single practitioner has little value in terms of generalisability, especially when the research is carried out by that selfsame practitioner. Three responses can be given here: firstly that a study such as this adds to the pool of evidence available to us, in much the same way that a n=1 case study design does; secondly that the interventions used with the clients of this service and in this study are both specified below and in general close to those indicated by the existing literature (e.g. Roth and Fonagy 1996) as being most effective for particular client groups, so that it should be possible to generalise from the outcome data; and thirdly that this sort of evaluation is just what we should be doing as a part of reflective practice.

The methodology adopted is quantitative, with two tests being administered at each of a number of points in time and changes in the scores of treated clients compared to those whilst waiting for treatment or of clients receiving routine care from their general practitioner. This approach has been chosen in order to provide empirical data for stakeholders, although it is acknowledged that some forms of subjective data are only accessible to qualitative methods, as will be discussed below.

Literature Review

The literature that is germane to this study is found in several areas; these include papers on the methodology of research into psychotherapeutic interventions, on evaluations of the effectiveness of counselling and/or psychotherapy and/or counselling psychology and/or clinical psychology generally and in comparison with other sorts of interventions, and more particularly, discussion and evaluation of these interventions in primary care.

A note on terminology first: I have used the term 'psychotherapeutic intervention' as a generic one, to refer to the sorts of activities that a counsellor, psychotherapist, counselling or clinical psychologist might persue with clients. At times however the precise allegiance of the practitioner(s) becomes important, because perhaps it says something about the content or context of the service provided, and in those cases I have been more specific.

Research Methods and Psychotherapeutic Interventions

Rennie and Toukmanian describe the two fundamental approaches to explanation found in human science, which they term the paradigmatic and narrative approaches after Bruner (the term 'narrative' is used here by Bruner in a wider sense than its more recent usage as just one of the non-paradigmatic methods; Bruner's usage equates more with the term 'qualitative'). Paradigmatic explanation is logico-scientific and based on philosophical realism; it is deductive, demonstrative and quantitative. Narrative explanation in contrast is inductive, hermeneutical and qualitative; reasons for actions are the products of interpretations of experiences; narrative explanation is constructive rather than objective (Rennie and Toukmanian 1992). I propose in this section to discuss both approaches in turn as they apply to the study of psychotherapeutic intervention.

Starting with the first of these two fundamental approaches, Barkham (1996) has reviewed the development and findings of paradigmatic (or quantitative) research on psychotherapeutic interventions. He begins by pointing out that a quantitative approach must involve measurement and statistical analysis but that this does not rule out a range of designs including single-case designs. He also prefaces his comments with a general caveat; that all such research in psychotherapeutic interventions

is bound to be flawed. The compromise that results from attempting to balance the requirements of internal, external, construct and statistical validity will always result in a less than ideal design in this field.

Orlinsky and Russell (1994) have suggested that there have been four phases in this research. The first was characterized by the need to show the legitimacy of scientific studies of therapy, the second by a search for greater rigour, the third by expansion and consolidation, and the fourth, current phase, by dissatisfaction with traditional research methodologies and greater openness to new approaches, such as qualitative methods. Barkham identifies and discusses three generations of relevant research that roughly correspond with the first three phases suggested by Orlinsky and Russell. The first generation lasted from the 1950s to the 1970s and had two main themes that have persisted up to the present: process and outcome. The first of these was associated with the work of Rogers and the study of the workings of the therapy process itself. In particular, researchers looked at the facilatative or core conditions postulated by Rogers and asked whether they could be measured and taught. A number of observational scales were proposed for the measurement of the required skills and attitudes, for example by Truax (1961).

The second theme in the first generation of research is more directly relevant to this present study. It was initiated by the publication of Eysenck's (1952) critique of the effectiveness of therapy, in which he claimed that the success rate of non-behavioural psychotherapy with neurotic clients was no greater than that resulting from spontaneous remission. This generated a large number of studies that attempted to reanalyse Eysenck's data or to find and analyse new data on the effectiveness of therapy, and, as Barkham points out, this required an increased awareness of methodological issues such as the nature, role and shortcomings of various types of control conditions, the effect of sample sizes on statistical significance (leading to the introduction of the concept of effect size), and the development of the technique of meta-analysis as a method of examining and combining both the direction and size of the effects found across a large number of studies. (However it must be pointed out that Eysenck himself has mounted a critique of the science of meta-analysis. His main criticism is to do with the problem of clinical heterogeneity in meta-analyses, i.e. the combining of results from studies done on different populations in

different places at different times and for different reasons; see Eysenck 1995.)

The first result of all this was a re-examination of Eysenck's claims of 1952, and the suggestion by Bergin and Lambert (1978) that his rate of spontaneous remission was too high because of his methods of definition and analysis of the data. A year later, however, Rachman and Wilson disagreed, although with qualifications: "Our review of the evidence that has accumulated during the past 25 years does not put us in a position to revise Eysenck's original estimate, but there is a strong case for refining his estimate for each of a group of different neurotic disorders; the early assumption of uniformity of spontaneous remission rates among different disorders is increasingly difficult to defend." (Rachman and Wilson 1979). A large number of controlled outcome studies were done during this period, and 475 of these were included in the meta-analysis of Smith and Glass (1977). This found an average effect size of 0.85 for therapy against no therapy, indicating that the average treated client was better than 80% of those not treated. Later meta-analyses have confirmed these findings, and are summarized by Lambert and Bergin (1994) who conclude "there is now little doubt that psychological treatments are, overall and in general, beneficial, although it remains equally true that not everyone benefits to a satisfactory degree." Criticisms of the process of meta-analysis have been made, though; Eysenck's comments about clinical heterogeneity have already been mentioned, but there is also concern over meta-analyses that include trials of questionable methodological quality, that unbeknowingly use duplicate data, and whose results are biased by the tendency for editors and authors to favour the publication of studies showing positive outcomes in the literature used as the source for the analyses. As one commentator puts it: "Meta-analysis has made and continues to make major contributions.....however, it is no panacea. If the process of pooling data inadvertently drowns clinically important evidence from individual studies, then a meta-analysis can do more harm than good." (Naylor 1997)

Barkham concludes that the research done during what he terms generation 1 clearly established the effectiveness of psychotherapeutic interventions. He also points out however, that in a sense we have come full circle in recent years: "with changes in service provisions in the NHS .....various stakeholders have begun to require outcome criteria. The demand to justify the impact of counselling and therapy has

met with market forces. Hence while Generation 1 research put increasing weight on internal validity, the question of external validity has now come to prominence." (1996, 34) This point will be returned to several times in this study.

The second of Barkham's research generations was from the 1960s to the 1980s, and he characterizes it as being concerned, in both outcome and process strands, with specificity. The therapy, the therapist and the client were now seen as important variables. Comparative outcome studies were done in which two or more therapies were compared with each other and sometimes with drug and placebo conditions. Often the delivery of the therapies was closely monitored to ensure adherence to protocols, and large sample sizes were used to compensate for potentially small effect size differences between treatments. These requirements made more naturalistic studies, perhaps with greater external validity, difficult to do. The general outcome of the comparative studies was that different therapies resulted in broadly similar outcomes: "the equivalence paradox" (Stiles et al.1986). Where one approach (usually cognitive-behavioural) did seem more effective the effect size was often small and, as Barkham points out, it was not clear how that might translate into changes in clinical status or mental health.

Generation 3, beginning in the late 1970s, took the concerns of clinical effectiveness and specificity and asked "Is this service and/or intervention cost-effective, and what are the change processes involved?" Questions such as the relative effectiveness of long-term versus short-term therapy in different contexts, and the relationship between the client's subjective experiences of therapy and objective outcome measures became important. Stakeholders wanted to purchase the most cost-effective treatments, and clinicians wanted to provide the most clinically effective.

Barkham makes a number of observations about the research done in these areas. Firstly, with regard to length of intervention, he points out that many time-limited studies actually use longer interventions than are commonly found in open-ended counselling contexts, where the average number of sessions might be around five. Secondly, elapsed time must be controlled for by carrying out assessments at similar points in time, and thirdly, it must be clear that sufficient therapy has taken place for any effect to measurable. Work done in this area (e.g. Howard

et al. 1986) seems to indicate a negatively accelerating positive relationship between number of sessions and client improvement. Thus it seems that for most clients most improvement comes in the early sessions, and this is important in cost-benefit analyses of services. However for some clients much longer interventions are needed, because of the time taken to establish trust for example, and it then becomes important to be able to assess the appropriate approach for the particular client. The significance of any improvement effect is also relevant here: what is clinically or psychologically significant change? As Barkham says, the issues involved in studying this vary with the population: observing or measuring significant change in a 'normal' population suffering from life events is different from doing that with a more severely disturbed population. Much outcome research tests a null hypothesis that a psychotherapeutic intervention will have no greater effect than a placebo, but as Roth and Fonagy (1996) point out, researchers may be able to reject the null hypothesis at quite high levels of statistical significance without being able to show that there is any clinically significant change. They suggest a number of strategies for detecting clinical change, such as the use of a criterion of recovery (e.g. a BDI score of <9) to enable categorical rather than continuous scoring of outcomes.

One finding that does seem to be robust is that the quality of the therapeutic relationship or alliance is closely related to significant change (Orlinsky, Grawe and Parks, 1994). However, methodological difficulties in studying the therapeutic alliance have contributed to the development of more qualitative approaches in recent years, and Bergin and Garfield (1994) predict that "the growing endorsement of narrative, descriptive and qualitative approaches represents a rather significant shift in attitudes that is likely to become more and more manifest in the conduct and reporting of inquiries." This is the fourth phase of research development suggested by Orlinsky and Russell and mentioned earlier.

McLeod (1996) defines qualitative research as being to do with "the collection and analysis of the accounts or stories that people offer regarding their experience", and emphasizes that it is not the absence of quantification or statistics that distinguishes it, but the focus on exploring the meanings of actions or experiences. He links it to a social constructionist perspective in which social reality is co-constructed, and the task of research is to construct or deconstruct versions of this social reality. As Gergen (1992) puts it: "Postmodernism asks the scientist to

join in the hurly-burly of cultural life - to become an active participant in the construction of the culture. For, as we have seen, the primary result of most scholarly inquiry is discourse itself. And, rather than simply recanting the taken-for-granted presumptions of the culture, the psychological scholar is in an optimal role to transform this discourse."

In his review of qualitative methods, McLeod lists interviews, open-ended questionnaires, stimulated recall techniques such as IPR, projective techniques, documentary sources and inquiry groups, and discusses data analysis by phenomenological methods, grounded theory and narrative analysis. The first of these he describes as immersing oneself in written or spoken accounts of experiences until the essence or essential meaning becomes clear (see for example Moustakas 1994). Grounded Theory was developed by Glaser and Strauss (1967) and as a term has two distinct usages: "Firstly it suggests the notion of grounding theory in experiences, accounts and distinct contexts..... . Secondly, the term is used to describe a method. This involves specific analytical strategies formulated for handling and making sense of initially ill-structured qualitative data." (O'Callaghan 1996). The researcher uses a sequence of coding strategies to break the data transcripts into units of meaning which are then labelled to create concepts. These are then clustered via meaningful associations so that gradually more superordinate categories emerge, leading in time to a coherent core category or underlying dynamic which may serve as the basis of an emergent theory. The third approach to the analysis of qualitative data cited by McLeod is narrative analysis. This, it is suggested, pays more attention to the meanings conveyed by the unfolding structure of a narrative, and what it tells us about how meanings are constructed. He quotes Riessman: "(narrative analysis) examines the informant's story and analyses how it is put together, the linguistic and cultural resources that it draws on, and how it persuades a listener of authenticity. Analysis in narrative studies opens up the forms of telling about experience, not simply the content to which language refers. We ask, why was the story told *that* way?" (Riessman 1993). McLeod (1994) has provided a review of the development and status of the narrative approach to counselling and therapy, which links it to the psychology of story-telling and to the narrative tradition in psychoanalysis (e.g. Spence 1982). Amongst a number of narrative approaches perhaps the best known is discourse analysis, described by Dickerson as "conceptualizing interviewee's accounts not as accurate reports upon inner mental attitudes or prior behaviour but as constructs

which build versions of the world and which accomplish certain functions." (Dickerson 1996).

At present such qualitative methods have been used mainly in process, rather than outcome, research, for example to increase understanding of how the client experiences a therapy session, or to explore what were the most and least helpful experiences during a series of counselling sessions (see for example Rennie 1992). McLeod (1996) cites a couple of studies that use qualitative methods in the evaluation of therapy (Howe 1989, Cummings et al.1994) but wonders whether it could ever be possible to compare effectiveness rates across studies or do meta-analyses using effect sizes. He suggests that mixed or pluralistic studies using both quantitative and qualitative methods might be the way forward, whilst acknowledging the difficulties in integrating the data from such different sources.

Rennie and Toukmanian (1992) discuss these difficulties with regard to process research, but the arguments apply to outcome studies too. They point out that according to some researchers the differing logic of justification of the two approaches makes them fundamentally incompatible. The objectivism and quantification of paradigmatic research justification does not apply to narrative explanation, where the credibility of an explanation "is a matter of the extent to which the hermeneutic researcher can win the consensus of the consumers of the explanation." That consensus may depend on such factors as the even-handedness of the researcher and the degree to which the explanation makes sense to the consumers in the light of their own understanding. Rennie and Toukmanian identify five dimensions of psychotherapy process research which they discuss in relation to the two modes of explanation; the dimensions are the object of the research, the level of reduction, the vantage point used, the mode of inquiry, and the unit of analysis. They conclude that all bar the last dimension are in the main constituted by contrasts between the two modes: for example the object of the research may be to understand either change (paradigmatic) or experience (narrative). Despite this they end by calling for methodological pluralism and epistemological synthesis, the incorporation of information from one approach into theorizing based on the other.

Taking a different position and referring specifically to the growing popularity of qualitative methods in counselling psychology research,

Glachan (1996) makes a plea for a pragmatic approach in which the method adopted in a study is that which is best suited to the question under investigation. He reviews the advantages qualitative approaches offer for many questions in counselling psychology, but also puts a number of arguments for continuing to use quantitative methods where appropriate: that some research questions, such as evaluations of therapeutic services, are not concerned primarily with meaning; that most qualitative work depends on narrative, which may not be available with some client groups such as the very young; that quantitative methods can anyway be used to elucidate 'below the surface' phenomena, such as children's theories of mind; that the simplistic empirical philosophy of earlier quantitative work has been superseded by multivariate methods of analysis which allow the study of complex patterns of relationships; and finally that many questions and disagreements remain about qualitative methods, even amongst their proponents. These refer particularly to the issues of reliability and validity as applied to qualitative data.

Finally, and as a way of bringing together a number of these strands, the work of David Shapiro and colleagues at Sheffield and now Leeds should be mentioned. In their study of psychotherapy and depression, for example, they have narrowed the gaps between process and outcome research, and between quantitative and qualitative approaches. The Process-Impact-Outcome research strategy used (Shapiro 1997) involves randomised allocation but for ethical reasons only to a range of active treatments, and multi-level measurements of within-session processes, session impact, 'mini'-outcomes, and overall outcomes. In this way they have been able not only to compare the outcomes from different therapies but also to investigate the processes involved in those outcomes, focusing particularly on the mutual responsiveness of client and therapist and demonstrating how they can be measured. Whilst a large funded study like Shapiro's can tackle methodological difficulties that a smaller evaluative project cannot, it is nevertheless a good example of where evolving research techniques are leading.

From this methodological review I would like to highlight three points that have particular relevance to this present study. These are the need for research into psychotherapeutic interventions to have external as well as internal validity, to be specific in focus, and to able to indicate effectiveness quantitatively for stakeholders. From these questions of methodology it is to the evaluation of interventions that I now turn.

The Evaluation of Psychotherapeutic Interventions

In their paper on evaluating practice, Barkham and Barker (1996) discuss some of the issues involved. They distinguish between service audit (the examination of aspects of service delivery), quality assurance (procedures to maintain standards), and evaluation, which is concerned with 'whether or not programs or policies are achieving their goals and purposes.' Clearly however audit and evaluation need to be part of quality assurance structures. They then quote six stages of evaluation planning proposed by Rossi and Freeman (1989):

1 formulating the service aim and objectives;
2 specifying the impact model, or strategy for meeting the objectives;
3 specifying the target population;
4 estimating the extent of the target problem;
5 assessing the need for the service;
6 specifying the design of the delivery system.

Having worked through these preliminary stages, the question of how to measure outcomes can be addressed. Barkham and Barker suggest seven criteria for outcome measures. These should be easy to use, relatively short, clinically sensitive, psychometrically sound, supported by normative data, atheoretical, and cheap! They also suggest using more than one measure, to increase reliability and as an aid to assessing change. The question of atheoreticity is not straightfoward: Roth and Fonagy (1996) illustrate this by suggesting that the Beck Depression Inventory, which assesses severity through mostly cognitive representations of depression, may indicate better outcomes for trials of cognitive therapy, whilst the Hamilton Rating Scale for Depression, which focuses on biological symptoms, may favour trials of medication. The use of a control group they consider to be not essential for evaluative studies, but assessment at several points in time is. They recommend pre-treatment, mid-treatment, post-treatment and follow-up after three months if possible (here again Roth and Fonagy discuss some of the complexities. They say that the length of follow-up should be governed by the natural history of a disorder; that a three month follow-up for a disorder known to show greatest relapse over a period of a year is clearly inadequate. However they also acknowledge that as the follow-up period increases so does the difficulty in interpreting the data, since the relative impact of treatment as against life events decreases with time). In the Barkham and Barker paper the emphasis is

on the practicalities of evaluating a service for its stakeholders through outcome measurements, and the authors avoid areas of methodological contention like this.

McLeod, however, in his paper 'Evaluating the effectiveness of counselling: what we don't know' (1995), does tackle some contentious issues. His argument is that it is important to look at the professional and service contexts of the outcome studies of psychotherapeutic interventions that have been done, and that we should not be too quick to generalise from their findings across other contexts. He points out that during 1993/4, out of 254 papers published in the three leading counselling journals in the UK and USA, only 17 were outcome studies. Why so few? McLeod suggests the reason may lie in a mistaken belief that sufficient outcome research has been done. This he says is mistaken because almost all the outcome studies in the literature (and Roth and Fonagy in their review of outcome (1995) have over 1200 references, many to other composite reviews of outcome studies) have been of the work of psychotherapists or clinical psychologists working in clinics, rather than of counsellors working in a more 'front-line' context where clients are less likely to be carefully assessed before acceptance, and more likely to be in immediate crisis. Even where the context is the same, for example in primary care, we should not assume that a clinical psychologist, a psychotherapist, and a counsellor would offer the same interventions, even if they are all termed 'counselling' in the research literature. What McLeod does in this paper is to raise the issue of specificity again, and this will be a central theme in the next section, which reviews the literature on the effectiveness of psychotherapeutic interventions in primary care.

Fonagy (1995) has estimated that around 50 new outcome studies emerge a month, and asks why this is such a difficult field in which to obtain definitive results. I think that the foregoing review of methodological issues indicates some of the difficulties, and Fonagy himself discusses these and some others. For example he points out that the past 40 years have seen some highly creative and rapid growth in psychotherapy, such that it has been estimated that 400 forms of therapy now are on offer. How can they all be evaluated? If we focus on a few of the more easily measurable, are we stifling creativity? Then there is the question of therapeutic integration (Garfield and Bergin estimate 30 to 68% of practitioners to be 'integrationists'). Fonagy asks how we can demonstrate treatment mode by client group specific

relationships if treatments are non-specific in important ways, or indeed if practitioners are more integrated than they may believe (or act when in a clinical trial). Other difficulties listed by Fonagy and discussed here include the practical and ethical problems of randomised control trials, the limitations of quantitative outcome measures in terms of subjective experience, and, as mentioned previously, the need for prolonged follow-ups but the problem of long intervening periods during which all sorts of extraneous variables can have an effect. It is against this background that we move on to look at therapy in the primary care environment.

Psychotherapeutic Intervention in Primary Care

In this section my intention is to discuss the literature on psychotherapeutic interventions in primary care in the light of the methodological and other issues raised in the preceding two sections. I shall begin by looking at the need for and place of such interventions in primary care, then I shall review some papers on the need to evaluate this work, before becoming more specific by discussing the literature on the roles and effectiveness of clinical psychologists, counsellors, general practitioners, psychotherapists and nurses in providing these services. Finally I will discuss the place of counselling psychology in primary care as a prelude to presenting my own research.

Since the early 1980s an increasing number of mental health care professionals have spent part of their time in primary care. Thomas and Corney (1993a) showed that in 1991 48% of general practices surveyed had a link with a community psychiatric nurse, 21% with a social worker, 17% with a counsellor, 16% with a psychiatrist, and 15% with a psychologist, and Sibbald (1993) in a larger survey found that 31% of practices had a significant input from a mental health care worker. Corney (1996a) has recently repeated this exercise to see the effect of fundholding on these services. She reported a substantial increase in mental health care workers employed by or attached to practices since 1991, with a particularly marked increase in fundholding practices, and in general the closer the links the more satisfied the general practitioners were with the services provided. Improved patient accessibility, greater family involvement, more preventive work and greater educative/consultative scope were among the advantages cited by the practices. The general practitioners valued the ease of the referral process and the potential for informal contact and discussion about their

patients. The patients felt comfortable attending sessions at a familiar local venue, avoiding the potential stigma of attending a mental health unit or hospital. Corney does, however, raise the problem of equity, asking about access to services for patients from practices without such links, and also about staffing problems in other less attractive areas of work within mental health such as long-term mental illness.

Another to comment on mental health care in general practice is Dowrick (1992), who begins by pointing out that it has been estimated that up to 40% of patients attending their general practitioner may have a psychiatric disorder (other authors give rather lower although still significant estimates e.g. King 1994 suggests that about 14% of consultations are openly for psychological reasons with another 7 to 10% not recognized as such), and that at any given time 30% of the population are experiencing anxiety or depression. Whilst acknowledging the importance of increasing GPs' detection rates of these problems in their patients, and the place of drugs in their management, Dowrick also focuses on the role of counselling in improving mental health in primary care. He discusses the part that a number of different mental health workers can play in this, and different models for the link between mental health worker and general practice. Like many others he calls for continuing evaluation of the effectiveness of primary care counselling.

With regard only to depression, Sheldon et al.(1993) have reviewed the effectiveness of available treatments in primary care. They found "persuasive evidence that tricyclic antidepressant therapy in recognised therapeutic doses produces a considerable improvement compared to placebo.....but relapse is a serious problem unless treatment continues for periods of up to six months after initial symptom resolution." Non-drug treatments such as cognitive therapy and counselling were also found to be effective and popular with patients but the authors again call for further evaluation. The Edinburgh primary care depression study, which compared medication, cognitive behaviour therapy and counselling, found marked improvements in all groups and only small differences (Scott et al.1994). Perhaps the biggest study to date in this area, the NIMH Treatment of Depression Collaborative Research Programme (Elkin 1995), compared the effectiveness of Cognitive Behaviour Therapy, Interpersonal Therapy, imipramine and a placebo condition, using standardized entry criteria and 16 week treatment protocols across three research sites and following up to 18

months post-termination. Using quite stringent recovery criteria, the study found recovery rates of 30% for CBT, 26% for IPT, 19% for imipramine, and 20% for the placebo (which involved 'normal clinical management'). The low rates indicate limitations in the effectiveness of these short-term interventions as Sheldon suggests, although Elkin points out that many of the patients did improve although not sufficiently for lasting recovery without remission. Finer analysis of the data suggested that for patients with functional impairment as well as depressive symptoms, medication was most effective. For severe depression without functional impairment, IPT did best. CBT showed the greatest variability across therapists and across patients of all four conditions, suggesting the importance of the therapist-patient interaction. This study and a number of others on primary care treatments for depression are reviewed by Roth and Fonagy (1996). It is interesting to note here that Allen Bergin has recently criticised the NIMH study for using a strict randomised controlled trial (RCT) design that cost many millions of dollars to set up and yet gave results of very limited external validity. Bergin considers this to be an example of the application of the principles of scientific modernism that is inappropriate for its subject matter (Bergin 1997).

The relationship between the provision of counselling in primary care and the prescribing of antidepressants, hypnotics and anxiolytics has been investigated by Fletcher et al.(1995), who found that the provision of counselling was not associated with a lower quantity or cost of prescribing psychotropic drugs. The authors suggest that practices with high counselling and drug usage may have higher existing psychological morbidity, or that they may have greater awareness of psychological distress and use drugs as an adjunct to counselling, or the presence of counselling may itself have uncovered psychological needs in patients and so increased prescribing rates. They conclude that the relationship between provision of counselling services and psychotropic prescribing rates is a complex one, with no evidence as yet that counselling will help to reduce volume or cost of prescribing. Other studies have demonstrated a reduction in prescribing during psychological treatment but not at follow-up (e.g. Robson et al. 1984), and seem to imply a difference in prescribing behaviour between trial conditions and normal clinical work, but there is evidence from others of sustained reductions. A number of studies have also shown a reduction in repeat consultations with the GP (e.g. Waydenfeld and Waydenfeld 1980).

What we see from these and other articles is an increasing presence of mental health workers in primary care with a corresponding increase in the amount of psychotherapeutic interventions on offer, especially since the inception of fundholding (that is the devolution of budgets to general practitioners themselves with which to buy in services). There has been an increase in general practitioner's awareness of psychological methods of treatment, but there is no clear evidence that psychotropic drug prescribing has decreased, and there are continuing calls for more-evidence on the effectiveness of psychological methods in general practice.

One researcher with a particular interest in this area is Corney, who has considered the evidence in her 1992 paper. She refers to four reasons for more evaluative studies: firstly, it is known that some patients are helped more than others - who and why? Secondly, it may be that some patients are harmed by therapy - again, can they be identified? Thirdly, which are the therapies that benefit which patients, and finally, what levels of skills are necessary for benefit to occur? Subjective accounts quoted by Corney suggest that there is much consumer and GP satisfaction, but it is harder to get a clear picture from clinical trials, with the problems of defining the client group, assessing improvements, following-up, assessing treatment and therapist quality, and the therapeutic relationship. Nevertheless Coney concludes that the studies that have been done, of both counsellors and other mental health professionals, give tentative support to the value of counselling in general practice. The effect sizes, however, are small: eleven studies comparing psychotherapeutic interventions with GP care gave an overall effect size for counselling of .23.

McLeod (1995) has commented on these findings, pointing out the wide range of therapeutic approaches involved in the studies quoted, the restricted nature of outcome measures used, the high attrition rates in some of the studies, and the lack of definition or control of 'routine GP care'. As he says, it is possible that GPs participating in such studies may have greater awareness of distress and greater psychological skills than is the norm. These and other problems mean that the effectiveness of the interventions may be greater than is indicated, but they also highlight the difficulties of balancing internal and external validity in primary care outcome studies. McLeod, in calling for mixed narrative and paradigmatic studies including n=1 designs, refers to the generalist nature of psychological work in primary care, the flexibility needed to

cope with a very varied caseload, and the way the primary care patient makes their own choice over treatment by simply not turning up. This all makes the traditional control or comparison-group design highly problematic, and attempts to increase the specificity of a study, as recommended by many commentators, may simply result in findings that have little or no external validity in this context.

An example of this can be seen in a paper by Trepka and Griffiths (1987), who, reviewing the evidence for the effectiveness of clinical psychologists in primary care, bemoan the way in which previous studies had samples consisting of all patients referred, rather than of treatment cases, i.e. patients who had been screened for suitability and who completed treatment. They state that the more stringent the screening, the greater the resultant treatment effect is likely to be. Now this is clearly likely to be the case, but it is questionable how much such a study would tell us about the hurly-burly of everyday psychological care in general practice. Trepka and Griffiths also criticize the use of global outcome ratings, suggesting instead that the outcome of specific interventions with specific sub-groups of patients is measured using scales appropriate to those sub-groups. This would involve considerable practical difficulties, one of which would be obtaining sufficiently large sub-groups, and is probably out of the question for small-scale evaluations.

Other researchers have called for ever more rigorous traditional designs. King (1994) and King et al. (1994) criticise many existing studies for lacking random allocation, restricting entry, having small numbers, not clearly defining the therapies involved, and using inadequate outcome measures. King et al.describe a pilot study in which all patients referred were included, and were randomly assigned by their GP to counselling or GP care unless they themselves had a preference. This process proved very difficult, the GPs feeling uncomfortable in the role of allocation although they could see the value of randomization. The counsellors that took part had varied skills and experience and differing types of contracts with the practices. The authors suggest that a group of similarly qualified counsellors should be funded and attached to practices purely for the purpose of a controlled trial. The patients in the pilot were more seriously disturbed than expected by the researchers, and the authors suggest stratifying the randomization on the basis of severity of distress. Because of this degree of severity they also suggest a longer follow-up period is needed, a minimum of six

months being recommended. They conclude that controlled trials along these lines are both feasible, if difficult, and the only way to provide unbiased evaluations of counselling in primary care.

King has returned to some of these points in a discussion paper for general practitioners (1997). In this he discusses the balance of internal and external validity, and focusses on four areas: the choice of outcomes to be measured, how and when to measure them, statistical versus clinical significance, and the relevance of improvement to the patient's life. He begins, however, by acknowledging again the difficulties of doing controlled trials in primary care settings where "daily routine is hectic, there is little extra room for therapists, ...and no incentive for staff to become involved." Nevertheless, controlled and 'pragmatic' trials are what is needed: "pragmatic trials are those in which we evaluate the treatments we offer in clinical practice. Patients entering the trial are those who would do so under normal conditions." As far as the choice of outcomes and their measurement, King asks us to chose those that are not too specialized, that have some validity and reliability, and that are relevant to the primary care patient. Subjective measures such as patient satisfaction are not helpful when used as the sole measure of outcome. Drop-out rates are another outcome measure, but do they show treatment efficacy, poor delivery or unacceptable treatments? King cites drop-out rates varying from 8% in highly controlled research centre studies to between 30 and 60% for therapy offered in mental health centres, although he gives no indication of how attrition was defined and measured in these studies, or whether they were comparable in this respect. As far as the question of clinical versus statistical significance is concerned, King points out that a statistically significant change may still leave a patient more anxious or depressed than normal, and so may not always be clinically significant for individuals. Effect size (the difference between the treated and control groups divided by their pooled standard deviation) is the most useful measure of change, states King.

In their recent review of psychotherapy research, Roth and Fonagy (1996) devote a chapter to primary care interventions. They begin the chapter by trying to clarify terminology: many primary care studies refer to 'counselling' without being clear about who does it or what it is. They say that "this blurring of professional background and psychological technique makes it difficult to be clear about the relationship between treatment and outcome in these studies." They

posit three ways of defining counselling; firstly by the setting in which the psychotherapeutic activity takes place i.e. in primary care, secondly by the lack of specialist training of the practitioners, and thirdly by the absence of a need for specific theoretical models in its practice. Unfortunately in their subsequent review they fail to specify which definition they are employing at any one time, but as all three definitions are full of holes perhaps this is not important. They do however review a large number of studies, and conclude that many are methodologically flawed, that there is little evidence for the value of generic counselling beyond what general practitioners themselves might provide, and that there is urgent need for studies of the effectiveness of specific approaches with specific client groups in the primary care setting.

In terms of methodology what emerges from the preceding discussion is a sense of a field of study riven by internal disagreement. We see calls for more rigorous, random control, quasi-experimental evaluative studies, as the prevalence of psychotherapeutic services increases within primary care and as the need for careful and prudent allocation of financial resources grows. At the same time we see an increasing debate about the most appropriate methods for studying psychotherapeutic activities, with a growing interest in non-quantitative approaches, which, it is claimed, capture much that is missed by more traditional methodologies. What further complicates the picture is the way in which the methodological debate is intersected by professional differences, for, as alluded to briefly early on, psychotherapeutic interventions in primary care are provided by a number of professions, each with their own traditions and ways of working. Some, such as clinical psychology and psychiatry, coming from more empirical, positivistic traditions, tend to favour quantitative approaches; others, such as counselling psychology, psychotherapy and counselling, come from and favour more humanistic or constructionist positions. Up to now I have ignored professional differences in the main, apart from earlier referring to McLeod's 1995 paper, where he suggests that these differences are of considerable significance when considering the effectiveness of psychotherapeutic activities. I shall now turn to some papers in which these differences do play an explicit part.

Clinical psychology has, over the past decade or so, been questioning its own identity and role within the NHS, and this debate in the last few years has become increasingly focused around primary care services. As Blakey (1996) puts it: "The development of the purchaser/provider split

in the NHS and the emergence of GPs as fundholders who make purchasing decisions about mental health services.....have led to a change of emphasis for many clinical psychologists. As well as the need to demonstrate the effectiveness of what we do, we also need to show that it is economical. It is not easy to do both at the same time, and so there is a danger that polarization will occur between proponents of short therapy and others who feel that such approaches should be discouraged." Blakey goes on in this paper on the most effective ways of working in primary care to say that increasing use of time-limited therapy by clinical psychologists under pressure to provide 'economical' services will be harmful to the profession, because "prospective purchasers may confuse the role of clinical psychology with less costly, and less effective, alternatives." He explains what he means by refering to the way in which many papers on the effectiveness of psychotherapeutic interventions in primary care fail to distinguish clinical psychologists from other workers. For example he criticizes Sibbald et al.(1993) as refering to clinical psychologists, CPNs and practice counsellors, as 'counsellors', and for failing to distinguish between 'counselling' and 'psychological intervention'. King et al.(1994) is criticized for "actually using the terms 'brief psychotherapy' and 'counselling' interchangeably", as if this were a crime the gravity of which is obvious to all. What Blakey demonstrates here is a blindness to the unsubstantiated claims that all too easily hold sway within professional groups, but which are glaringly obvious to outsiders. In what sense is counselling not a psychological intervention? Is there not a considerable literature on the difficulties of differentiating between counselling and brief psychotherapy, or indeed any psychotherapy? Why assume counselling to be brief or time-limited? Why the unquestioned assumption that alternatives to clinical psychology will be less effective, as well as less costly? It is assumptions such as these that increase the difficulties of throwing some light on what really happens when psychotherapeutic interventions are used in primary care.

However I do not wish to give the impression that there are not real areas of difference between professional groups. House (1996) has explored one of these; the ideological differences and tension between the orthodox medical model of mental ill-health and the theory and practice of humanistic counselling. The cognitive-behavioural interventions of much of clinical psychology are seen as rooted in "a medical system which is typically 'bits-of-person-centred' and increasingly mechanistic and technocratic in its approach." House

suggests that the two approaches have only been able to co-exist alongside each other in primary care up to now because of collusive denial by both GPs (because "a full acceptance of counselling as a valid means of health care would fundamentally question not only some of the central assumptions of the medicalisation of ill-health but also the value system underlying their exhaustive training") and counsellors, and that if further progress and development is going to take place this denial must be addressed. Although from my experience House overstates the uncomfortableness of GPs with a humanistic model, of direct relevence to this study is House's question as to "whether or not a humanistic approach is commensurable with the increasingly strident demands for audit and efficiency .....currently sweeping the NHS."

Another constructive contribution is made by Howells and Law (1996), who report on the implementation of a particular service strategy in the primary care setting. This strategy was designed to reduce waiting lists by maximizing the effectiveness of the input of a 0.5 wte clinical psychologist and a full-time counsellor, through offering a mix of self-help literature, individual appointments for person-centred counselling or cognitive therapy, group sessions and a self-help support group. Effectiveness was measured using the GHQ 28 and the BDI. Before treatment the mean GHQ score was 15 with 90% of referrals reaching clinical caseness; the mean BDI score was 24 with 90% caseness and 30% rated severe. After treatment the mean GHQ score was 4 and mean BDI score was 12. No indication is given of the elapsed time between testing, except for a comment that many clients remained 'on the books' for 18 months before discharging themselves; neither was there a GP care only control condition. The authors conclude that the intervention strategy was of benefit, and that this was irrespective of severity or chronicity of cases referred.

A good example of a study of process and outcome in primary care counselling that takes account of many of the issues mentioned here is that of Booth et al. (1997). This commissioned research followed McLeod's (1995) suggestion that a broad range of measures be used, and also attempted to give due emphasis to the clients' expectations and perceptions of the counselling. As the authors put it: "There is a need for more detailed exploratory research assessing presenting difficulties from clients' perspectives as well as clients' expectations of counselling. It is important to avoid making assumptions about clients' presenting problems while attempting to fit them into pre-existing diagnostic

categories. In order to develop assessments which are appropriate to the individual and the primary care context, it is imperative to discover what clients want to achieve through counselling." As well as looking at clients' ratings of goal attainment, problem resolution, and quality of life, the researchers also monitored changes in psychotropic drug prescribing and GP consultations. The results showed a significant decrease in GP consultations once counselling commenced that continued to follow-up at 3 months, no change in drug prescribing levels, and a high degree of satisfaction with goal attainment, problem resolution and improvement in quality of life.

The question of the degree of severity of cases seen in primary care as compared to secondary provision and the appropriateness of the services offered has been the subject of a number of studies by clinical psychologists. Burton, Sadgrove and Selwyn (1995) compared the work of a counsellor at two surgeries over a four year period with that of the district clinical psychology service for the same area. The counsellor was Relate-trained and had also done a one year brief psychodynamic therapy training, and worked eclecticly, using brief psychodynamic therapy, cognitive-behavioural treatment for anxiety and depression, and some couple work. The psychology department provided cognitive-behavioural and psychodynamic therapy, couples work, and long-term psychodynamic group therapy, and supervised the counsellor. The clincal effectiveness of both services was monitored and proved to be similar, although different measures were used; the counsellor used a self-rating of change that showed an overall improvement in 81% of clients at end of contact, the psychologists judged 86% of patients to be improved at discharge, and this was supported by changes in SCL-90R and IIP scores. When the caseloads were compared, it was apparent that the counsellor saw significantly more older patients, but this was because secondary referrals of older clients went to the elderly service. The counsellor saw significantly more patients with anxiety, depression, marital and child problems, and health-related issues than the psychologists, who in turn saw more patients with personality and relationship disorders. As the counsellor's skills and experience increased toward the latter part of the study period these differences became less marked. There was also evidence that patients who had seven or more counselling sessions did significantly better than those who had six or less, and this was even more marked for the psychology sample. The authors conclude that, firstly, counsellors and clinical psychologists do see different patient

populations, with more entrenched or difficult cases being seen by the psychologists, but that as counsellors' training and experience increases the distinction lessens, and secondly, that five or six sessions of therapy will result in little lasting change for many patients and that clinical psychologists will continue to be required to offer longer-term treatment for more disturbed patients, to supervise the counsellors, and to assist GPs in developing appropriate referral guidelines and evaluation protocols. Now although this and other similar studies provide us with some interesting data on the work of practice counsellors and clinical psychology departments, there is a certain degree of circularity about their findings. If a counselling service is set up in conjunction with and supervised by a clinical psychology department, and referrals are made to the two services according to guidelines determined in advance by the psychologists and the GPs, it is not surprising that their respective caseloads should fit the profiles on which the guidelines were based, and support the arguments used in establishing those profiles.

Another related question that clinical psychologists have looked at concerns the clinical threshold for referrals to psychotherapeutic services; does increasing accessibility by providing services in primary care settings lower the clinical threshold for referrals? One of the concerns of the health commissioning agencies is that such accessibility may encourage general practitioners to refer 'subclinical cases' or the 'worried well' who would recover from their reletively minor difficulties without specialist help. The inconvenience of referring to and attending a specialist hospital service, it is suggested, may make the referrer consider and select more carefully, and may cause less severely suffering patients to opt out of attending. Tata et al. (1996) have recently investigated this question by comparing levels of psychological disturbance in patients seen by clinical psychologists in general practice-based services with those of patients seen at outpatient clinical psychology clinics. All patients attending their first appointment at a number of primary care and outpatient psychology services during a two month period were invited to complete a battery of questionnaires before the session commenced. Between 10 and 30% of referred patients did not attend for their first appointment and 12% of those who did declined to participate in the study, there being little difference between the two settings in these figures. The results from the questionnaires showed "a striking absence of differences between the patients seen by psychologists across primary care locations and

specialist units .....providing a more accessible and user-friendly primary care psychology service does not appear to lower the clinical threshold for referrals." The mean GHQ score was 21.7 for the primary care sample and 21.8 for the outpatient sample, and the HADS anxiety and depression means were 12.6 and 8.28 for primary care and 12.4 and 8.99 for outpatients. As for 'caseness', 67% of patients scored above the threshold for a formal anxiety disorder on the HADS, with 13% borderline. 33% merited a formal diagnosis for depression on the HADS, with 12% borderline. No significant difference was seen between the two groups in these figures. The authors conclude that "the concept of primary care led commissioning of mental health services is based on the idea that general practitioners are able to make sensible decisions about the services their patients require, regardless of location. This study provides no reason to question this idea."

Another profession associated with psychotherapeutic interventions in primary care is psychotherapy, and here the influence of Michael Balint can be seen, with his emphasis on the training of GPs in basic psychotherapeutic skills. Gask and McGrath (1989) have reviewed the developments in primary care mental health provision from this perspective. They begin by commenting on the growing awareness within the NHS of the potential value of the psychotherapist working in general practice, and state that they are using the term psychotherapist in a broad sense to describe "professionals from any discipline who employ psychological and psychodynamic treatments for a range of social and psychological problems." They then present two models of working, the 'consultation' model in which the treatment is provided by the psychotherapist, and the 'liaison' or skill-sharing model, where the aim is keep the majority of treatment with the primary care team. Most psychiatrists and psychologists in primary care work according to the consultation model, but Balint (1964) suggested that GPs themselves should aim to recognize more instances of psychological distress and provide a basic level of psychotherapy for their patients, supported by psychotherapy professionals as in the 'Balint groups' (case discussion groups). Although Balint has been criticised for 'over-psychologising' patients' problems and for his dismissal of non-psychoanalytic psychological approaches, Gask and McGrath see him as pioneering the view of the GP consultation as an interactive process, and of the potential liaison role of the psychotherapist with the GP. Following Balint a number of schemes were set up in which psychotherapists became part-time members of primary care teams in a liaison capacity.

One of the elements in the liaison approach concerns the GPs' abilities to recognize psychological distress. A recent study showed a 'missed prevalence' of around 15% for psychiatric disorder in primary care (O'Ryan 1996), and there is much evidence of wide differences between GPs in their abilities to identify psychological problems (e.g. see Davenport et al.1987). Gask and McGrath suggest that possession by the GP of psychotherapy skills will improve both detection and treatment of problems, and so the training of GPs in these skills is an important issue. Most GPs do not want formal intensive training or a Balint group experience but a broader-based approach teaching basic skills in psychological assessment and management, which Gask and McGrath see as a valid and important application of psychotherapeutic principles to primary care. They conclude "More effective strategies involve broadening the definition of psychotherapy, and recognising that every doctor-patient interaction requires skills that are psychotherapeutic. Skill-sharing approaches hold the best chance of effective management reaching the appropriate patients. Primary care workers need to be taught such basic skills, and a range of options needs to be available so that teaching can be geared to individual needs."

The use of the term 'primary care workers' by Gask and McGrath indicates the way in which it is not just the GP who is seen as providing psychological care for patients, and so the skill-sharing of the liaison psychotherapeutic professional needs to involve other members of the practice team. Greenfield et al.(1987) and Wilkinson et al.(1993) have shown the important role that the practice nurse has in the management of patients with psychosocial problems, and Wilkinson et al. in their pilot study have suggested that the practice nurse, after a brief special training, may have a significant role in the diagnosis and treatment of patients with depression. However a recent and more extensive study (Mann 1998) has found contradictory evidence: acknowledging that psychologists and counsellors in primary care can only see a minority of depressed patients, this study used a random control design to compare changes in BDI scores over four months of patients treated by their GP (mostly with antidepressants) with patients treated both by their GP and the practice nurse. The nurses used a treatment protocol involving information-giving, advice and support, for which they received a short training. Both groups of patients showed marked improvement at four months follow-up, but there was no added benefit for the nurse

intervention group. However the authors do suggest that the brief training did produce a shift in attitudes and management in the nurses that was beneficial for patients.

Thomas and Corney (1993b) in their survey of practice nurses in two health districts found that 89% of respondents dealt with psychological problems, and 76% did that by spending time listening and talking with the patient; some had done counselling training and had time allocated for that. Most, however, felt inadequately trained to deal with psychological problems; 91% wanted more training in this area, and short courses on stress management, counselling skills, and identification skills were seen as most useful. The authors state that all primary care workers including GPs, health visitors, district nurses, practice nurses and receptionists should be trained to recognise and deal appropriately with people in distress, as part of a "progressive movement which sees these mental health skills not as a province solely for the specialist, but as an essential part of the repertoire of all health professionals."

I have reviewed the input into primary mental health care of clinical psychology, counselling, psychotherapy, and the primary care team itself, but I have not yet considered the distinctive contribution of counselling psychology in this area, which is the focus of this study. Corney (1996b) suggests that while the clinical psychologist is a specialist in mental illness, the great majority of patients seen in primary care are showing a 'normal' distress reaction to life events, and while the clinical psychologist may use counselling skills in their work with such clients, it is the counselling psychologist who has a training specifically focussed on the development of these skills. At the same time the counselling psychologist will have a wider theoretical and practical knowledge base than most counsellors, involving expertise in a range of therapeutic interventions, consultancy and teaching skills, and research knowledge. This is one way to approach the question of how counselling psychology differs, if at all, from the other approaches or groupings (and it begs a number of questions about mental normality and abnormality).

Another way was taken by Duffy (1990), who suggested that it is what counselling psychologists *are* that is significant, not what they *do*. Through their training and personal therapy, counselling psychologists come to be concerned with the fulfilment of potential, rather than

thinking in terms of the curing of sickness, and this concern influences and informs their practice. Thus, as Woolfe (1996) puts it, instead of thinking of crises and problems as evidence of pathology, the counselling psychologist will see them in a developmental sense, as normative experiences posing a challenge of developmental adaptation. This does raise some questions about the traditional 'scientist-practitioner' stance of the psychologist that are relevant to how and why research is carried out. A number of writers (e.g. Strawbridge 1997) have therefore looked to the 'reflective practitioner' model (Schon 1987) instead. Strawbridge points out that "In the interest of increasing academic credibility, we persue forms of theoretical sophistication which never quite meet our needs as practitioners.....the acquisition of more formal 'scientific' knowledge can impede the development of practice relevant knowledge." Schon talks of the 'indeterminate zones of practice' as swampy lowlands characterized by uncertainty, uniqueness and value conflict. It seems to me that for the reflective counselling psychologist undertaking research, then, it becomes imperative to explicitly encompass those swampy lowlands, either by adopting qualitative methods or, as I have attempted to do here, by using a quantitative approach that acknowledges the difficulties, complexities and lack of neatness of everyday practice.

Method

The practice and the psychology service

The practice is situated in a traditional industrial village near to the edge of an urban area in southern Wales and serves a predominantly working class population, but with some middle class and professional housing and some farming families. The traditional industries of the area, iron and coal, have all but disappeared and there is a high level of unemployment and few opportunities for work. Much of the housing stock is cramped and in poor repair. The population is almost entirely Welsh and there is little geographical movement of families. Rates of psychological distress are high but so is distrust or ignorance of the 'talking therapies'. On the other hand, as will be discussed later, the culture is perhaps more accepting of the open expression and acknowledgement of emotion and emotional distress than is the norm in England. The practice itself has six partners and usually two trainees. Early fundholders, they have a progressive reputation and offer physiotherapy and acupuncture on-site as well as the psychology service. One of the general practitioners is doing a psychosexual medicine training and at least two of the others have an interest in the psychological aspects of primary care. The practice list size is 10,439, almost identical to the Welsh average of 10,443 and health authority average of 10,407.

In the terms of the six stages of evaluation planning suggested by Rossi and Freeman (1989) and described in the introduction, the aim of the psychology service is to provide an accessible and effective on-site assessment and treatment service for patients referred by the primary care team. A needs analysis had clearly indicated the extent of the requirements for the area, and the delivery design was for a service provided on two days per week by a chartered clinical psychologist working for a mental health trust under a service level agreement with the practice. Clients are referred by their general practitioner or less commonly by the practice nurse or one of the community nurses to the psychologist. The client is sent a letter confirming referral and explaining that an appointment will be sent as soon as possible. The wait between referral and first appointment averages around six to nine weeks unless the GP requests an urgent appointment.

At first appointment an assessment is made and a short report sent to the referrer. The client is then (i) discharged, (ii) referred elsewhere, (iii) taken on for treatment on a non-intensive basis e.g. to be seen once a month, or (iv) taken on for treatment with appointments weekly or bi-weekly. All cases are reviewed at the sixth session and at each subsequent sixth session. However it should be remembered that interventions in primary care are often very brief: the mean number of appointments per patient at the surgery in question during the two year period of this study was four, a finding consistent with audits of other similar services (see for example Davies 1993 and Hudson-Allez 1997).

Treatments are offered within an integrated and person-centred framework but use primarily cognitive-behavioural interventions for the symptomatology of anxiety disorders, trauma, OCD and depression, and brief psychodynamic methods where there seems to be an underlying developmental link. Supportive person-centred counselling is also provided for a small number of clients with chronic conditions. Clinical consultation is obtained from a consultant psychodynamic psychotherapist (monthly) and a cognitive-behavioural 'B' grade (or consultant level) clinical psychologist (six-weekly).

Sampling

All patients referred to the psychologist after the start date were asked to participate in the study, and the general practitioners were asked to enrol patients seen by themselves whom they did not refer even though they presented with psychological problems, either because the patient themselves did not wish for referral or because the GP wanted to treat the patient themselves. The same explanatory leaflet was used in both cases to avoid contamination. No pressure was put on any patients who declined to take part, and in total only two were known to have refused to enrol. This number is small enough not to significantly bias the data.

The doctors were asked, in addition, to operate a randomised allocation process, such that patients appropriate for referral who expressed no preference were to be allocated either to GP or psychologist care dependent on the oddness or evenness of the date. In the event virtually no random allocation occurred, and the comparison group therefore consisted primarily of patients who had refused referral. Reasons for,

and implications of, the failure of the planned randomisation are considered later, in the discussion section.

Enrolment continued until a predetermined sample size of 70 participants was reached, this number representing a balance between that required for statistical usefulness and constraints imposed by time. Of the overall sample of 70, 54 were in the treatment group and 16 in the control group. 43 of the treatment group and all 16 of the control group completed at least three of the four stages of testing.

Ethics

Potential ethical issues were discussed at the planning stage with senior colleagues and the general practitioners involved, and ethical clearence obtained from the general practitioners senior partners group. An explanatory and consent sheet was included with the questionnaire pack for patients, which they were asked to read and sign. This is included in appendix 1. All questions asked by participants before, during and after data collection were answered fully. Because the study was an evaluation embedded in normal practice, and because there was no allocation to the 'non-active' (i.e. GP-care) condition unless the patient and GP agreed, it was not felt that other ethical issues were involved.

Tests used

The two tests used in this study were the Hospital Anxiety and Depression Scale or HAD (Zigmond and Snaith 1983) and the Symptom Checklist 90-R or SCL-90-R (Derogatis 1994). The tests are shown in appendix 1.

The SCL-90-R was chosen because of its multi-dimensional nature. It gives a global measure of psychological distress plus scores on nine primary symptom dimensions which have the advantage of mapping onto DSM IV categories. It is also supported by considerable reliability and validity data and has been used in many other outcome studies.

A potential drawback of the SCL-90-R is its length. Although it may only take ten minutes to complete by a fast-working respondent, its small print and dense appearance can be off-putting. It was therefore decided to supplement it with another much shorter test that could be

completed even if the SCL-90-R was not. The HAD was chosen as a very brief, user-friendly measure designed for use in the out-patient and primary care setting. Although it measures mood disorders only, it was felt that at least some symptoms of anxiety and/or depression were present in nearly all clients referred to the author at the surgery and that therefore the HAD would be an acceptable second measure.

The **HAD** is a 14-item scale that provides a brief state measure of both anxiety and depression. It was designed for use in medical out-patient settings to detect clinical cases of anxiety and depression. The authors excluded any items related to physical disorder, and attempted to distinguish clearly between anxiety and depression by focusing purely on the anhedonic state in the depression subscale, and selecting the items for the anxiety subscale on the basis of the Present State Examination and other clinical experience of anxiety neuroses.

The scale is self-administered and takes about 5 minutes. Each item is scored from 0 to 3, giving total scores between 0 and 21 for each subscale. Using psychiatric diagnoses as the standard, scores of 7 or less are considered non-cases, scores of 8 to 10 are considered to indicate possible or mild clinical disorder, and scores of 11+ to indicate probable disorder or definite cases (scores of 15 and above are considered to show a severe level of the disorder). Response bias is reduced by alternating the order of responses to each item.

Concurrent validity was assessed by comparison with psychiatric ratings of 100 medical out-patients with acceptable results. Internal consistency and reliability data are also described as good by the authors, although Bowling (1991) suggests that much more work on both reliability and validity of the HAD is needed. Nevertheless it does combine the virtues of being designed for the medical out-patient setting, being short, measuring both anxiety and depression, and giving both an index of state and cut-offs for probable clinical levels.

The **SCL-90-R** is a 90-item self-report symptom inventory, designed to measure the current psychological symptom patterns of respondents. A development of the Hopkins Symptom Checklist (HSCL), it consists of 90 items which are rated on a five-point scale from 'Not at all' to 'Extremely'. Completion takes about 15 minutes. Gender-keyed norms are supplied for psychiatric inpatients, psychiatric outpatients, and nonpatient adults and adolescents.

The SCL-90-R is scored and interpreted in terms of nine primary symptom dimensions and three global indices of distress. The primary dimensions were evolved, according to Derogatis, through a combination of clinical and empirical procedures. They are:

Somatization (SOM): This dimension reflects distress arising from perceptions of bodily dysfunction.
Obsessive-Compulsive (O-C): This focuses on thoughts, impulses and actions that are experienced as unremitting, irresistible and unwanted, as in the clinical syndrome of the same name.
Interpersonal Sensitivity (I-S): This dimension concerns feelings of inadequacy, inferiority, self-doubt and self-consciousness, and significant discomfort in interpersonal interactions.
Depression (DEP): This represents a range of the symptoms of clinical depression, including lack of interest, motivation and energy, feelings of hopelessness, thoughts of suicide, and other cognitive and somatic correlates of depression.
Anxiety (ANX): The Anxiety dimension includes nervousness and tension as well as panic attacks and feelings of terror.
Hostility (HOS): This reflects thoughts, feelings and behaviour associated with anger, aggression, irritability and resentment.
Phobic Anxiety (PHOB): This is defined as a persistent fear response to a specific stimulus that is irrational and disproportionate, and leads to avoidance or escape behaviour.
Paranoid Ideation (PAR): This refers to a disordered mode of thinking characterized by projective thought, suspiciousness, grandiosity, fear of loss of autonomy, and delusions.
Psychoticism (PSY): The Psychoticism dimension provides for a continuum from mild alienation to psychosis, including items indicative of a withdrawn and schizoid lifestyle as well as first-rank symptoms of schizophrenia.

There are seven additional items in the SCL-90-R that are not subsumed under any one of the above dimensions but which give additional clinical information.

The three global indices of distress are the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI) and the Positive Symptom Total (PST). The GSI combines data on both the number of symptoms reported and the severity of the distress, and is the main summary

measure of the SCL-90-R. The PSDI indicates overall symptom intensity, and the PST shows the number of symptoms endorsed.

The raw scores of the nine symptom dimensions and three global indices are converted to standard T scores using the appropriate norms.

An operational definition of 'caseness' for SCL-90-R data is that if a respondent has a GSI score greater than or equal to a T score of 63, or if any two primary dimension scores are greater than or equal to a T score of 63, then the individual is considered a positive risk or case. This definition refers to scores on the nonpatient norms, which were those used in the current study.

Reliability data for the SCL-90-R is given by Derogatis for both internal consistency and test-retest reliability. The former varies between 0.77 and 0.90 for the nine primary symptom dimensions, and the latter between 0.80 and 0.90 for a one-week interval between testing.

A large number of studies are quoted by Derogatis to attest to the validity of the SCL-90-R. Convergent-discriminant validity has been demonstrated by numerous comparisons with data from other scales and structured diagnostic interviews such as the Present State Examination. Sensitivity to change across a range of treatment interventions and throughout the spectrum of psychological distress has also been demonstrated. Derogatis also cites a large number of examples of the use of the SCL-90-R in studies of psychotherapeutic outcomes. Sederer and Dickey (1996) consider the SCL-90-R to be "well researched and validated."

Design and Administration

The design used combined elements of the open trial, in which the control or comparison condition is provided by participants waiting for treatment, and the randomised control trial, in which participants are randomly allocated to two or more conditions. In this study data was collected from many of the referred participants whilst on the waiting list, so giving a waitng list comparison, and also from non-referred participants, so giving in addition a GP-care only comparison. For reasons discussed elsewhere, however, this was not done by random allocation, and therefore the internal validity of the design was compromised. It is a post-hoc argument, though, that this actually

improved the level of external validity by creating a design that was closer to clinical practice, where patients and practitioners together chose the desired form of treatment.

The two test used, together with explanatory material, were sent to referred patients at referral, and then administered again at first appointment and then twice more at roughly eight week intervals. For the GP-care group, the tests were given at first consultation (by the GP) and then given or sent at the equivalent eight week intervals. Not all participants completed the tests at all stages for a variety of reasons; reminders were sent where appropriate but if there was no response participants were not pressed further.

As an additional measure, surgery records were scrutinised to monitor the number of visits made to their GP by each participant in the six months before participating in the study and in the six months afterwards. Home visits by the general practitioner were included, but not routine minor medical treatment by the practice nurses or referrals to hospital based specialists, since these would have had to have been preceded by a consultation with the GP in any case.

The combination of open trial and controlled trial designs was used in order to satisfy the demands of both internal and external validity as much as possible, and the results were expressed in terms of numbers of cases and effect size, as well as in terms of test scores, in order to indicate levels of clinical as well as statistical significance.

Summary of design:

Treatment group tested with HAD and SCL-90R at: (1)Referral (2)Start of treatment (3)8 weeks (4)16 weeks.

Control group tested with HAD and SCL-90R at: (1)Entry (2)Start of GP care (3)8 weeks (4)16 weeks.

Test results expressed as: (a)Scores (b)Numbers of 'cases' (c)Effect Size.

Both groups monitored for numbers of GP visits for 6 months prior to and after treatment.

All explanatory and consent forms, written instructions to general practitioners, and examples of the tests used are shown in the appendices.

Data Analyses

Data management and analyses were carried out using Excel 4 and SPSS for MS Windows 6.0.

Between-group comparisons for continuous variables (for example comparing the mean scores of each group on a particular measure) were done using *t*-tests for independent samples with Levene's Test for Equality of Variances as a check on homogeneity.

Within-group comparisons for continuous variables (for example comparing the mean scores of the treatment group on a particular measure at different times) were done using *t*-tests for paired samples.

Because the chances of making a type 1 error are increased when using *t*-tests to make planned multiple comparisons, the Bonferroni method of correction was employed. This involves dividing the standard significance level of 0.05 by the number of planned comparisons, and submitting each *t*-value to this new and more rigorous measure of significance. In this case the corrected significance level was 0.001.

A between-group comparison using all the test measures was done using MANOVA.

For the analysis of categorical data (for example the numbers of 'cases' in each group at a particular time) chi-square tests were used.

SPSS output for the data analyses is in appendices 5, 6, 7 and 8.

Hypotheses

As indicated earlier there are two hypotheses tested in this study:

Null hypothesis 1
The treatment group will show no improvement after treatment.
Experimental hypothesis 1
The treatment group will show an improvement after treatment.

Null hypothesis 2
The treatment group will not show a greater improvement than the control group.
Experimental hypothesis 2
The treatment group will show a greater improvement than the control group.

Each of these two hypotheses is tested by measuring a number of outcome criteria. The first four refer to changes in HAD and SCL-90R scores, over either eight or sixteen weeks, and comparing the treatment group either with itself or with the control group. The next four are identical apart from refering to numbers of cases rather than scores. The next two concern changes in the number of visits to the general practitioners during six month periods, again comparing the treatment group either to itself before treatment, or to the control group. The final outcome criterion concerns the effect size demonstrated by the data. These eleven criteria represent the five basic measures (HAD and SCL-90R **scores** and **cases** at **eight weeks** post-start of treatment, at **sixteen weeks** post-start of treatment, and **number of visits** to the GPs) used in two ways: as part of an open trial or repeated measures design (i.e. with a waiting list control), and as part of a controlled trial or independent measures design (i.e. with a contol group), plus the effect size measure.

Outcome criterion 1
There will be a significant difference between treatment group scores on HAD and SCL-90R scales at the start of treatment and at 8 weeks after starting treatment.
Outcome criterion 2
There will be a significant difference between treatment group scores on HAD and SCL-90R scales at the start of treatment and at 16 weeks after starting treatment.
Outcome criterion 3

There will be a significant difference between treatment and control groups on HAD and SCL-90R scales at 8 weeks after starting treatment.

Outcome criterion 4

There will be a significant difference between treatment and control groups on HAD and SCL-90R scales at 16 weeks after starting treatment.

Outcome criterion 5

There will be a significant difference between numbers of treatment group 'cases' according to HAD and SCL-90R scales at the start of treatment and at 8 weeks after starting treatment.

Outcome criterion 6

There will be a significant difference between numbers of treatment group 'cases' according to HAD and SCL-90R scales at the start of treatment and at 16 weeks after starting treatment.

Outcome criterion 7

There will be a significant difference between treatment and control groups on numbers of 'cases' according to HAD and SCL-90R scales at 8 weeks after starting treatment.

Outcome criterion 8

There will be a significant difference between treatment and control groups on numbers of 'cases' according to HAD and SCL-90R scales at 16 weeks after starting treatment.

Outcome criterion 9

There will be a significant difference for the treatment group in the number of visits to the general practitioners in the six months before and after treatment.

Outcome criterion 10

There will be a significant difference between treatment and control groups in the number of visits to the general practitioners in the six months after treatment.

Outcome criterion 11

The Effect Size shown by this study will be greater than zero

Results

Demographic characteristics

Of the 70 participants recruited to the study, 17 (24%) were male and 53 (76%) were female. In the treatment group, 11 (20%) were male and 43 (80%) female, and in the control group 6 (37%) were male and 10 (63%) female.

There was no significant difference between the ages of male and female participants, the mean age for males being 37.06 years and for females 36.91 years.

There was no significant difference between the ages of the participants in the two groups, the mean age for the treatment group being 38.37 years and for the control group being 36.75 years.

The distribution of diagnoses in the two groups is shown below:

Diagnosis	Control group	Treatment group
Anxiety	7 (44%)	17 (31%)
Depression	5 (31%)	19 (35%)
Anxiety and Depression	1 (6%)	11 (20%)
OCD	0 (0%)	1 (2%)
CSA	1 (6%)	1 (2%)
Relationship	1 (6%)	3 (5%)
Eating Disorder	0 (0%)	1 (2%)
Other	1 (6%)	2 (4%)

Table 1: Numbers and Percentages of Diagnoses in the Sample

The control group contains a majority of patients referred with anxiety, a smaller number with depression, and then equal and much smaller numbers with combined anxiety and depression, childhood sexual abuse, relationship difficulties and other problems. The small size of the control group makes comparisons difficult, but the treatment group shows similar numbers of anxiety and depression referrals, and a higher percentage of patients with combined anxiety and depression. Overall, however, the profiles are not dissimilar.

Baseline data

The mean scores of the control and treatment groups at entry to the study and at the start of treatment are summarised below (full details are in appendix 4):

	HAD Anxiety	HAD Depression	SCL-90R GSI
1: At entry			
Control group	13.14	9.43	71.86
Treatment group	14.08	11.38	73.65
2: At start of treatment			
Control group	13.44	10.25	72.81
Treatment group	13.61	10.71	72.78
Overall means	13.57	10.45	72.77

Table 2: Mean Scores at Entry and at Start of Treatment (Stages 1 and 2)

The numbers of 'cases' in the control and treatment groups at entry to the study and at the start of treatment are summarised below (full details are in appendix 4):

	HAD Anxiety	HAD Depression	SCL-90R GSI
1: At entry			
Control group	6 out of 7	5 out of 7	7 out of 7
Treatment group	25 out of 26	23 out of 26	25 out of 26
2: At start of treatment			
Control group	14 out of 16	12 out of 16	15 out of 16
Treatment group	47 out of 50	36 out of 50	45 out of 50

Table 3: Numbers of 'Cases' at Entry and at Start of Treatment (Stages 1 and 2)

Looking at this data in greater detail, we can see the following:

1: At entry (testing stage 1).
HAD Scale: At entry to the study the mean score on the anxiety subscale was 13.14 for the control group and 14.08 for the treatment group, as shown above. These show no significant difference (t-test, p=0.63).The mean score on the depression subscale was 9.43 for the control group and 11.38 for the treatment group. These do show a significant difference (t-test, p=0.01).
The numbers of 'cases' in each group on the anxiety (control, 6 cases out of 7; treatment, 25 out of 26) and depression (control, 5 cases out

of 7; treatment, 23 out of 26) subscales show no significant difference (anxiety; χ^2=1.06, p>0.1: depression; χ^2=1.23, p>0.1).

SCL-90R: At entry to the study the mean score on the SCL-90R Global Severity Index was 71.86 for the control group and 73.65 for the treatment group. These show no significant difference (t-test, p=0.43). There was also no significant difference between the two groups on any of the primary dimension scales of the SCL-90R.
The numbers of 'cases' in each group on the SCL-90R criteria (control, 7 cases out of 7; treatment, 25 out of 26) show no significant difference (χ^2=0.27, p>0.1).

From the above we can see that the only statistically significant difference between the treatment and control groups at entry to the study was in their mean score on the HAD depression scale, the treatment group scoring significantly higher. On all the other measures used, the treatment group also scored higher but not significantly so.

There was no significant difference between the mean scores of male and female participants on any of the HAD or SCL-90R dimensions at entry to the study (see appendix 7 for details).

2: At start of treatment (testing stage 2).
HAD Scale: At start of treatment the mean score on the anxiety subscale was 13.44 for the control group and 13.61 for the treatment group. These show no significant difference (t-test, p=0.86).The mean score on the depression subscale was 10.25 for the control group and 10.71 for the treatment group. These also show no significant difference (t-test, p=0.67).
The numbers of 'cases' in each group on the anxiety (control, 14 cases out of 16; treatment, 47 out of 50) and depression (control, 12 out of 16; treatment, 36 out of 50) subscales show no significant difference (anxiety; χ^2=0.65, p>0.1: depression; χ^2=0.05, p>0.1).

SCL-90R: At start of treatment the mean score on the SCL-90R Global Severity Index was 72.81 for the control group and 72.78 for the treatment group. These show no significant difference (t-test, p=0.99). There was also no significant difference between the two groups on any of the primary dimension scales of the SCL-90R.

The numbers of 'cases' in each group on the SCL-90R criteria (control, 15 cases out of 16; treatment, 45 out of 50) show no significant difference (χ^2=0.19, p>0.1).

These results indicate that the treatment and control groups were close to identical in symptom spread and severity at the start of treatment. Compared to the data from the first stage of testing, i.e. at entry to the study, we can see a slight convergence of scores over the eight week period, the difference between the two groups on the HAD and SCL-90R scales having decreased. This convergence results from a small increase in the scores of the control group and a small decrease in those of the treatment group. Why there should have been this difference is not clear, but one possible explanation is that clients in the treatment group, suffering slightly more severely on average at entry to the study, were reassured by receiving notice of their upcoming first appointment, leading to a small drop in symptom severity. The control group, on the other hand, were continuing to receive normal GP care, i.e. had no referral appointment to look forward to and perhaps, to pin their hopes on.

3: Change whilst on the waiting list.
Comparing the treatment group scores at entry and at start of treatment, we find a small decrease in symptom severity as indicated above, but the changes are not significant (t-tests, p=0.59 for HAD anxiety, 0.42 for HAD depression, and 0.54 for SCL-90R GSI).

4: Visits to the GP.
The mean number of visits to the general practitioners in the six months prior to the study was 4.1 for the control group (range 2-7) and 4.7 for the treatment group (range 2-10). This difference is not significant (t-test, p=0.47). The mean for the groups combined was 4.4.

Overall, the baseline data indicates a close match between the treatment and control groups at the start of treatment. This to some degree compensates for the failure of the randomisation protocol, since although the groups may in the main have been self-selected, they did not differ significantly on any of the measures used. The data also indicates no significant changes in the treatment group during the eight week period between enrolment and start of treatment, so increasing

the likelihood that any subsequent changes were the result of treatment only, and not of any confounding variables.

It is interesting to compare these baseline figures with those collected by Tata et al.in a study of patients presenting to both primary care and hospital-based outpatient psychology services across London in 1996. That study found little difference between the two sets of patients, and an overall HAD mean score of 12.5 for anxiety and 7.94 for depression. Both of these mean scores are noticeably lower than the mean baseline scores found in this present study: the mean anxiety score for the treatment and control groups combined, averaging across entry and start of treatment testing stages, is 13.57, and the depression score is 10.45. This indicates that the severity of psychological distress in the patients seen in this research was rather greater than that found in the much larger London sample. This is also shown by the GP consultation rates: Tata et al.found an overall rate of 5.44 visits in the previous 12 months; this study found a mean combined rate for its two groups of 4.4 visits in the previous 6 months. Both of these rates exceed that given in official statistics (3.25 visits per 12 months) for all patients (Royal College of General Practitioners, 1990). Overall then, there is good evidence here that the severity of distress in the sample of patients in this study was not insignificant.

Raw Results, Analyses and Charts

The raw data is shown in appendix 4 and the analyses in appendices 5, 6, 7 and 8.

The following charts represent graphically the mean scores for each of the two groups at each of the four points in time when testing was carried out, for each measure in turn. They show the changes in scores over stages of testing for the treatment group (this was the open trial or repeated measures condition), and the difference in scores between the treatment and the control groups (the controlled trial or independent measures condition).

In the charts, Time/Stage 1 is entry to the study, Time/Stage 2 is start of treatment, Time/Stage 3 is 8 weeks later, and Time/Stage 4 is 16 weeks later.

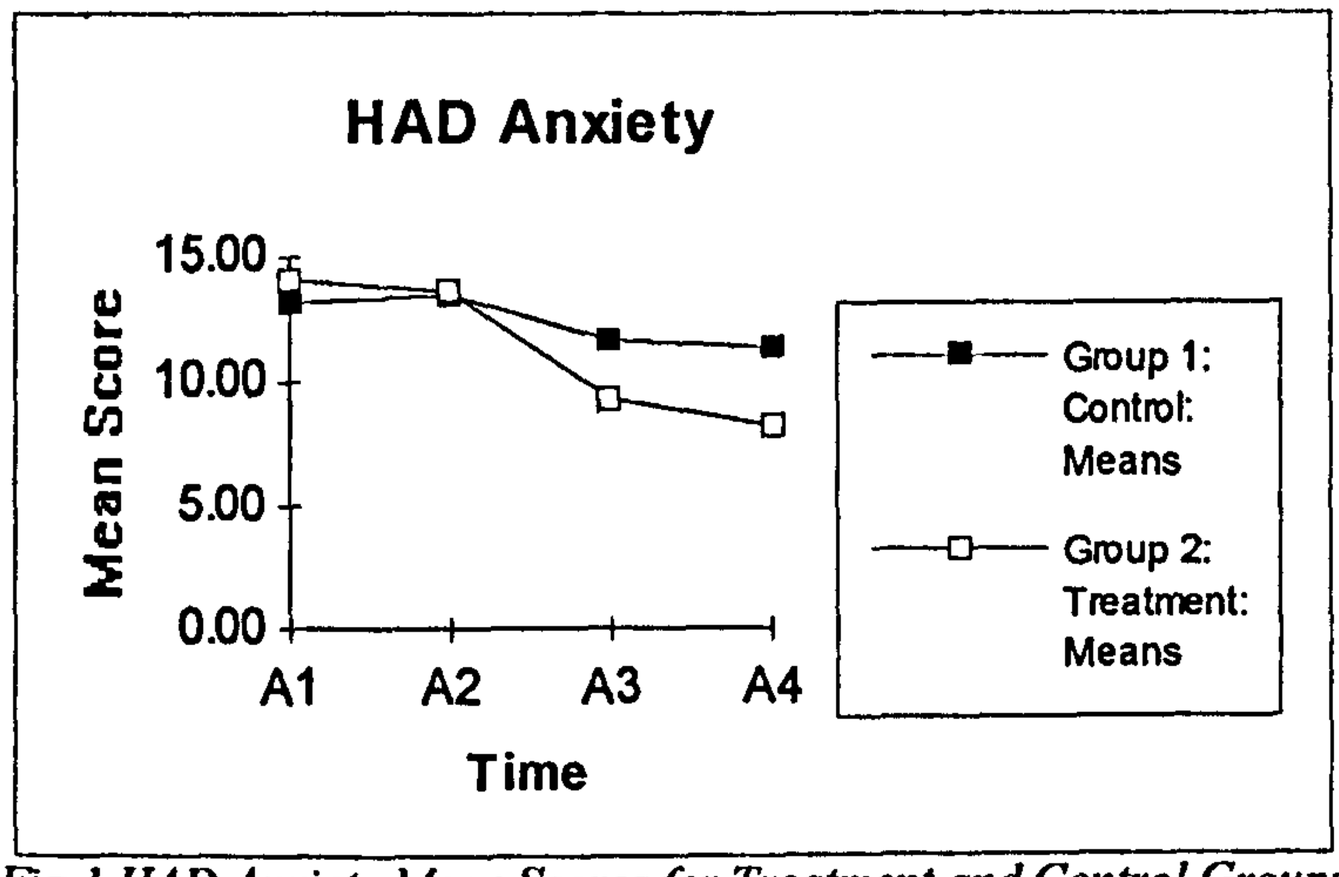

Fig.1 HAD Anxiety Mean Scores for Treatment and Control Groups

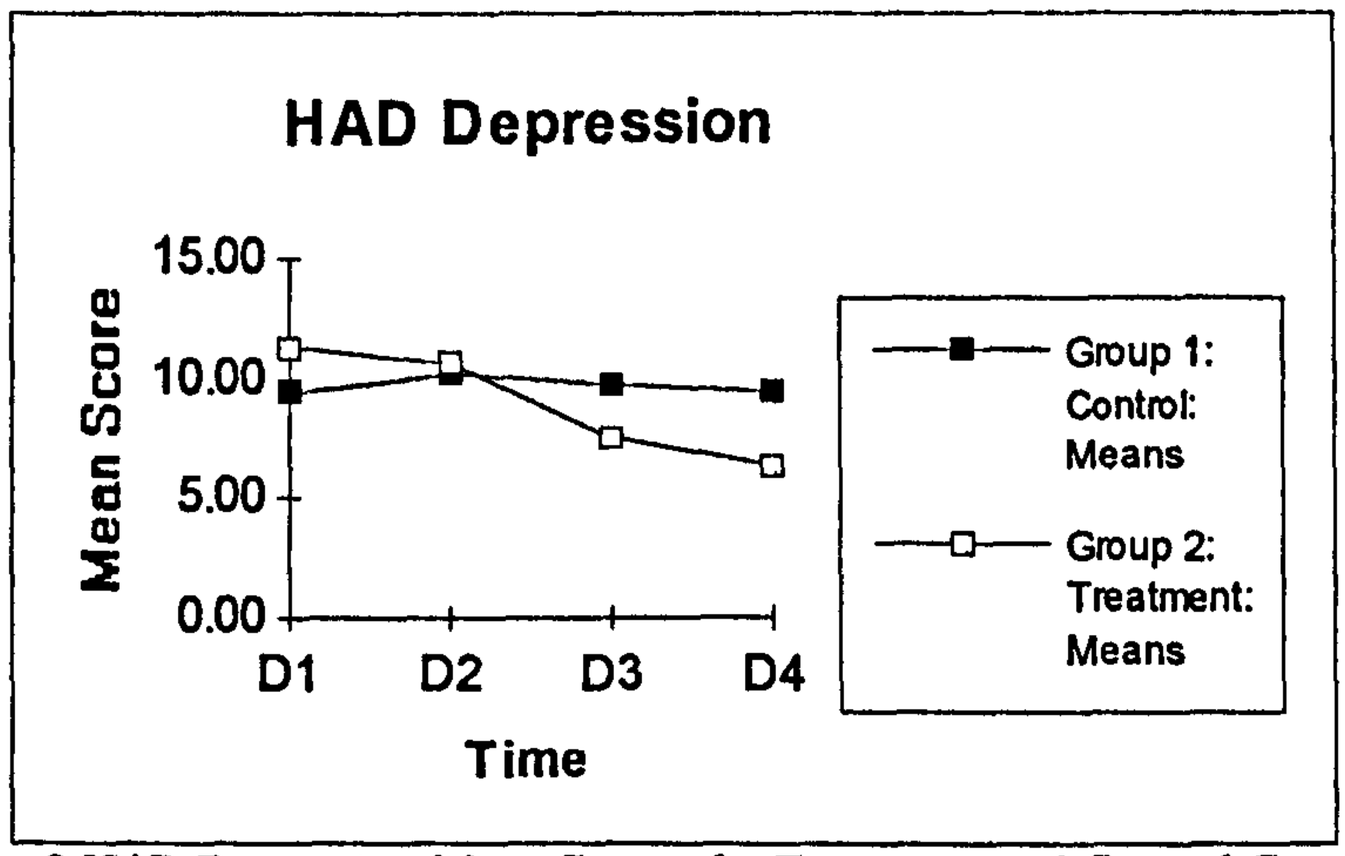

Fig.2 HAD Depression Mean Scores for Treatment and Control Groups

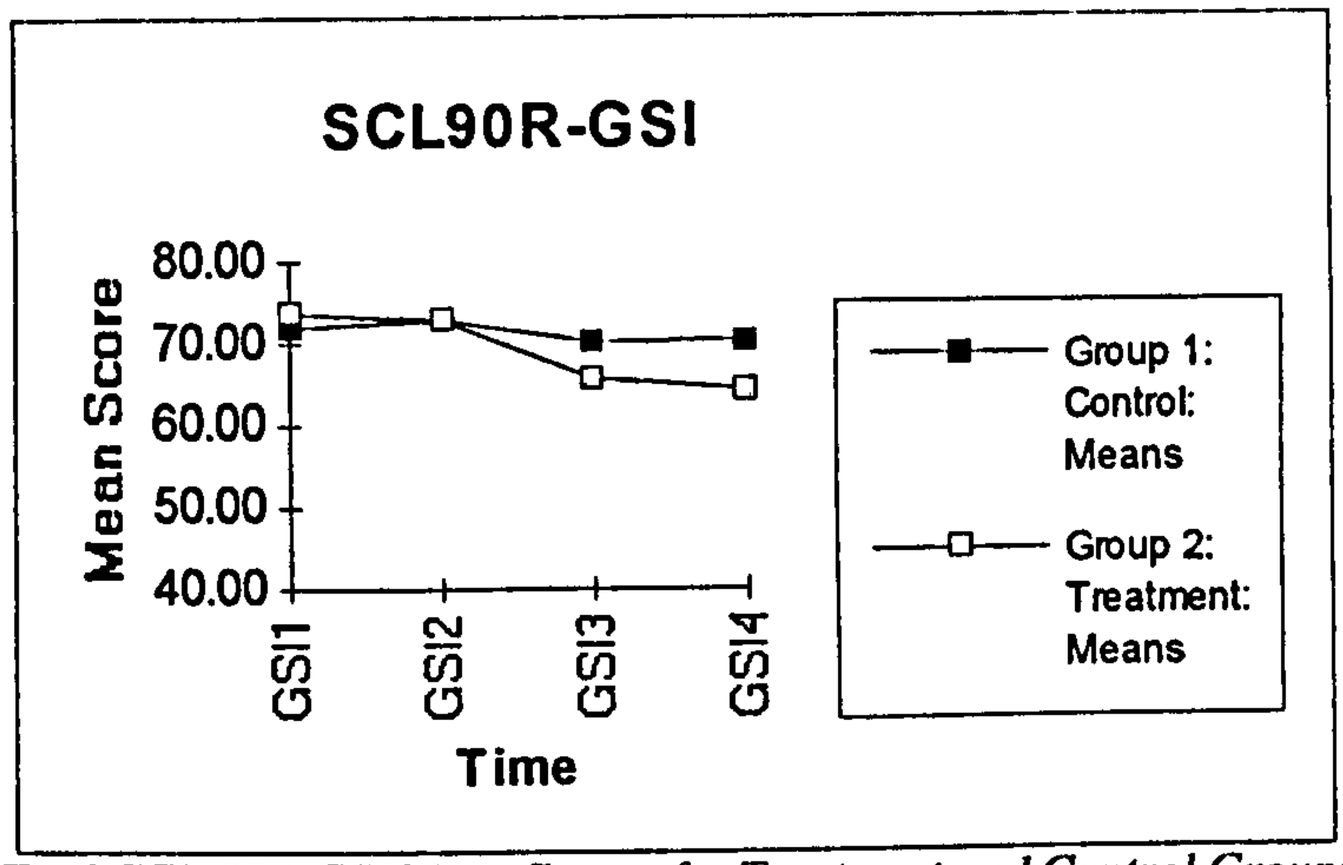

Fig.3 SCL-90R GSI Mean Scores for Treatment and Control Groups

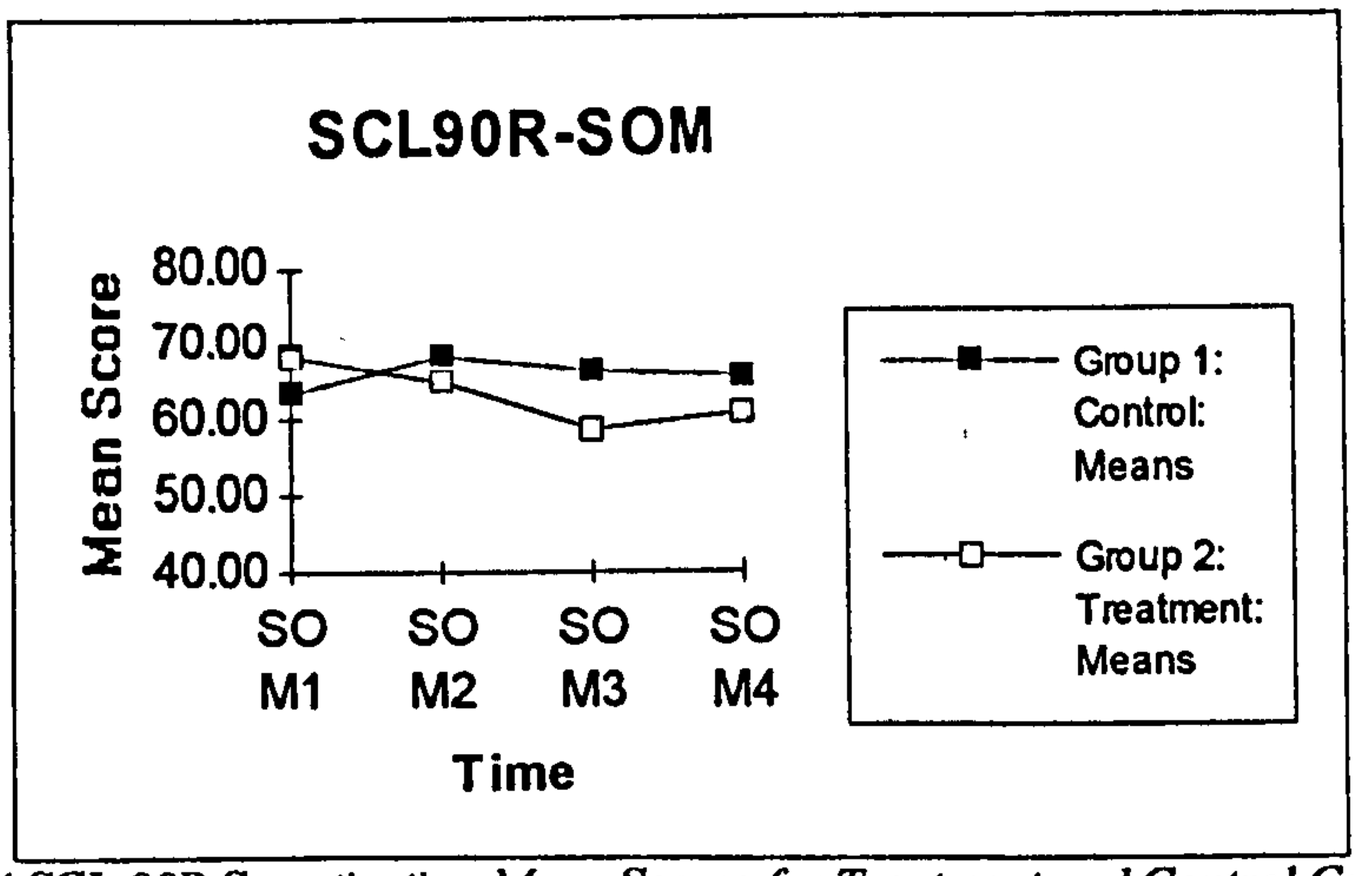

Fig.4 SCL-90R Somatization Mean Scores for Treatment and Control Groups

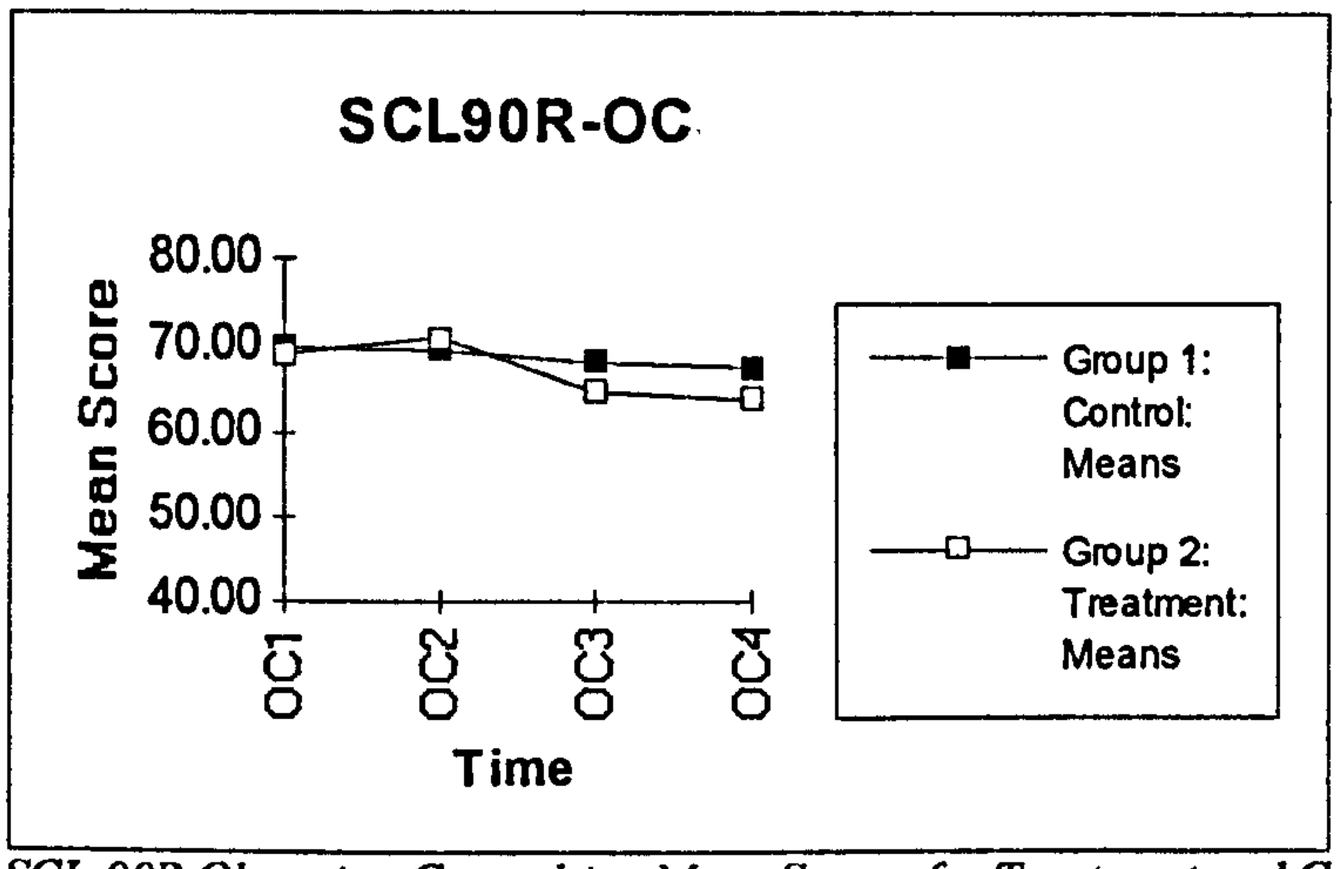

Fig.5 SCL-90R Obsessive-Compulsive Mean Scores for Treatment and Control Groups

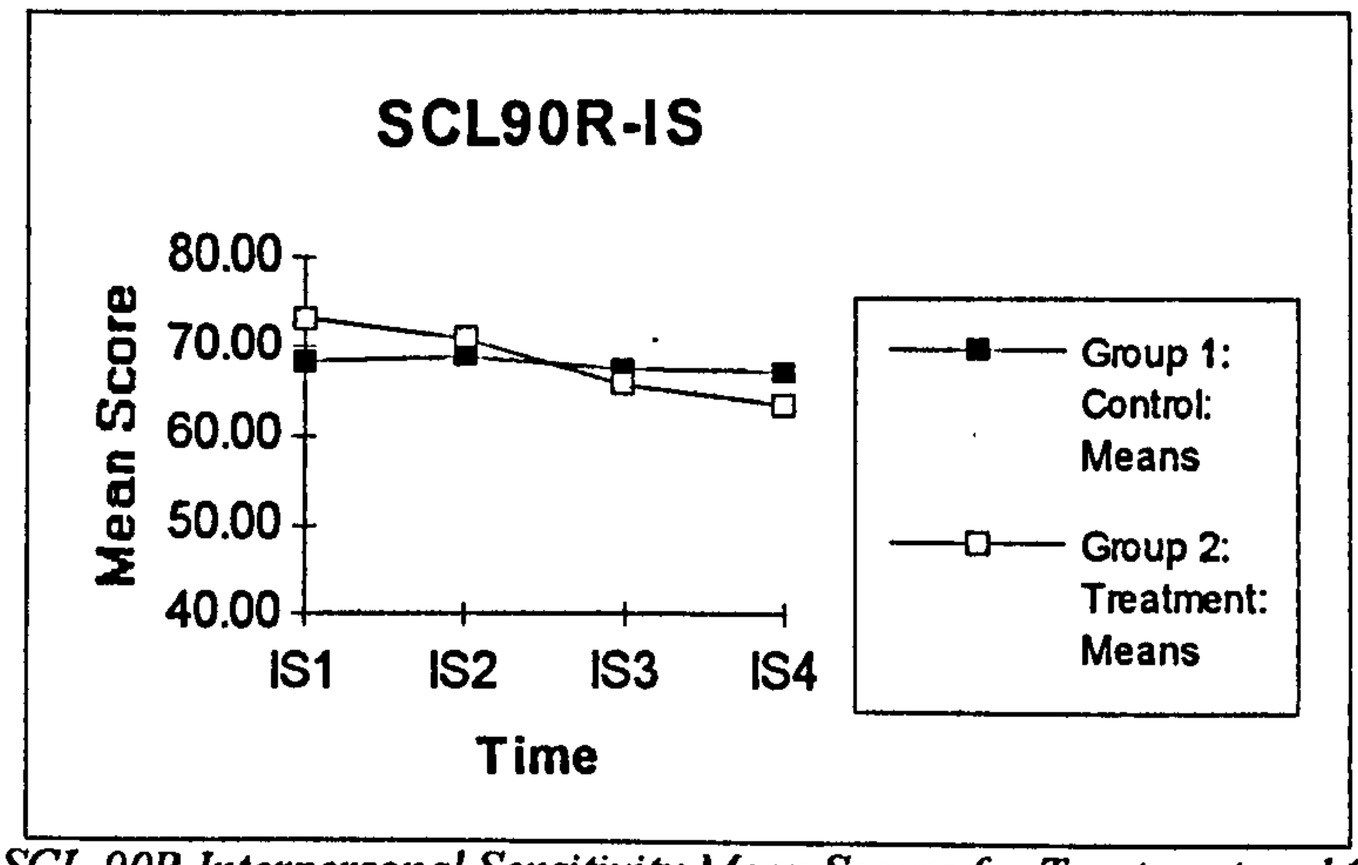

Fig.6 SCL-90R Interpersonal Sensitivity Mean Scores for Treatment and Control Groups

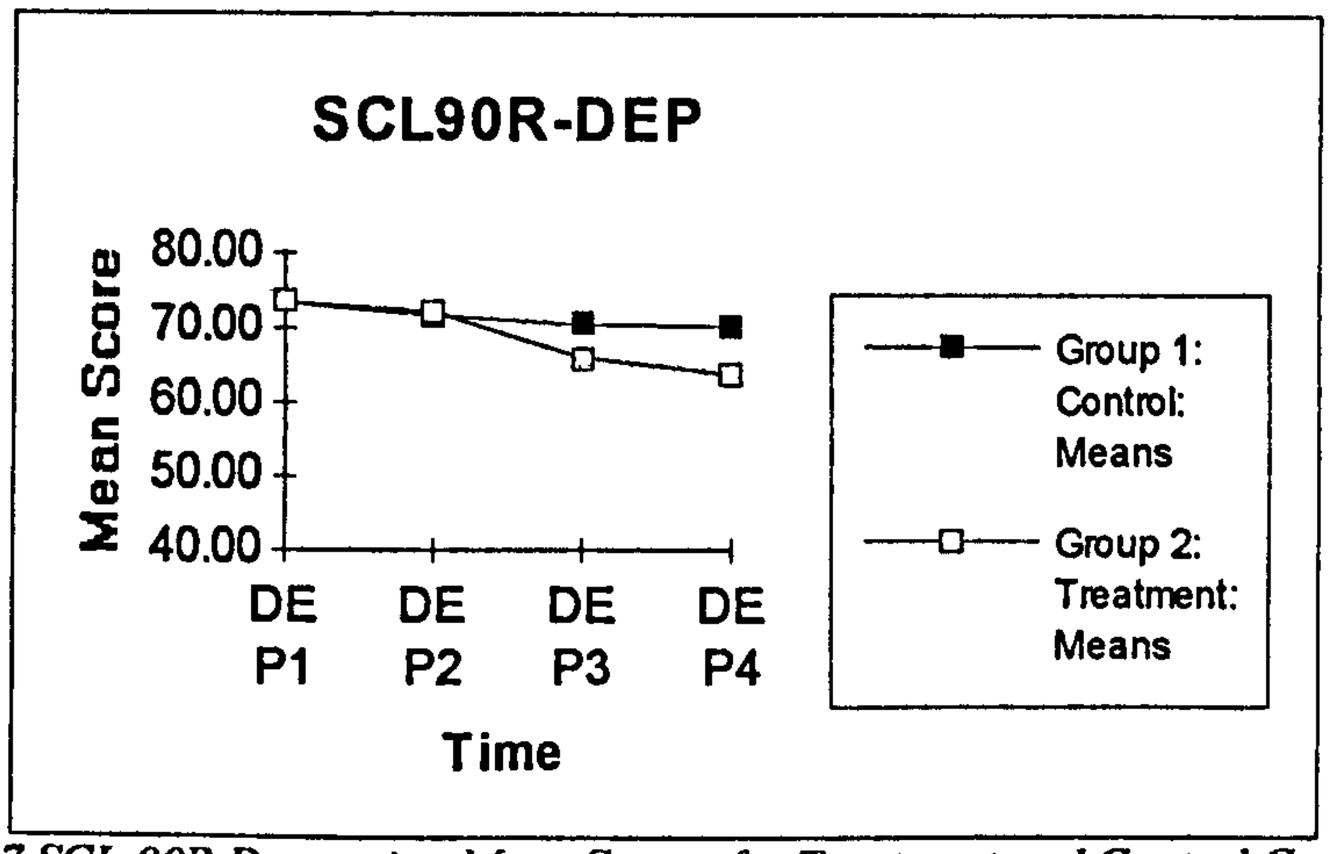

Fig.7 SCL-90R Depression Mean Scores for Treatment and Control Groups

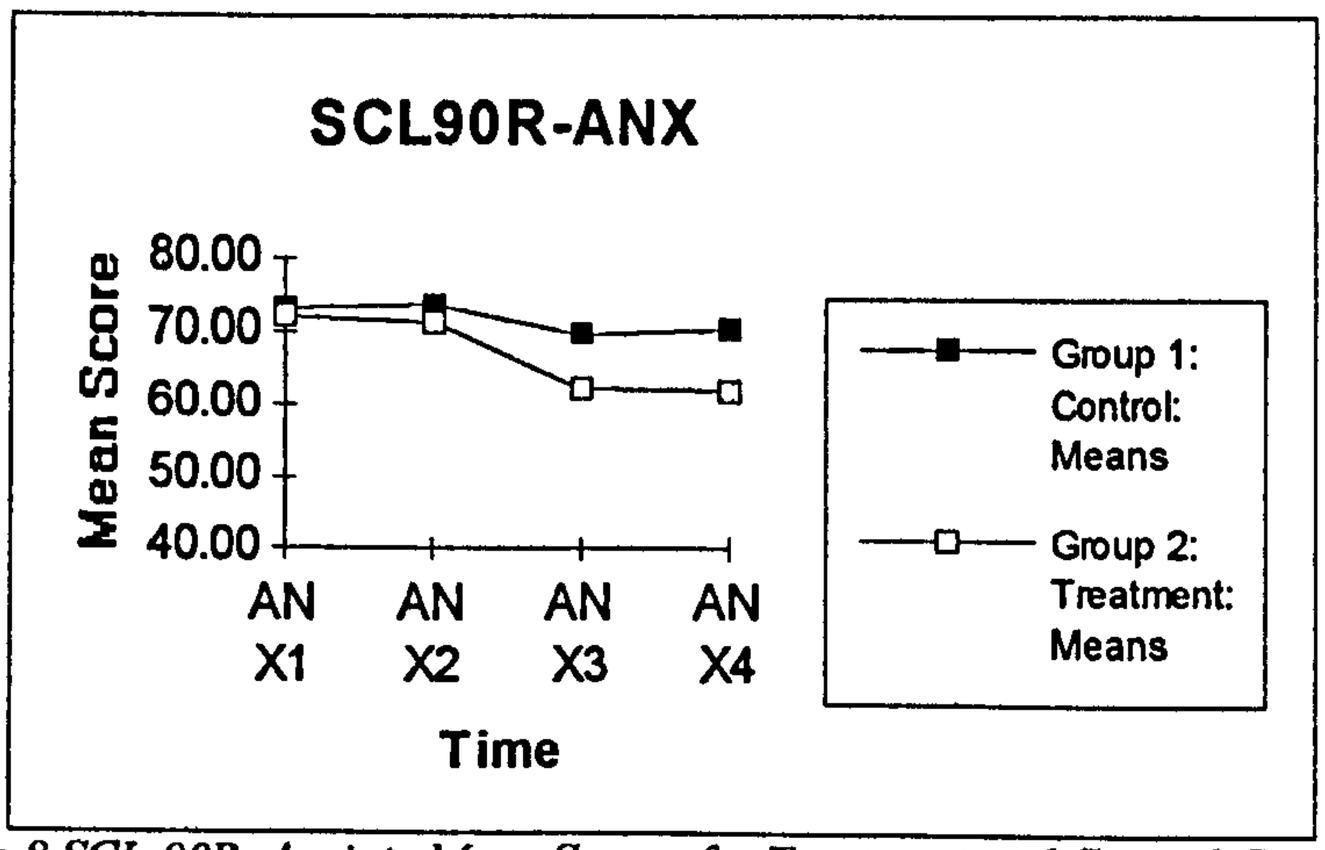

Fig.8 SCL-90R Anxiety Mean Scores for Treatment and Control Groups

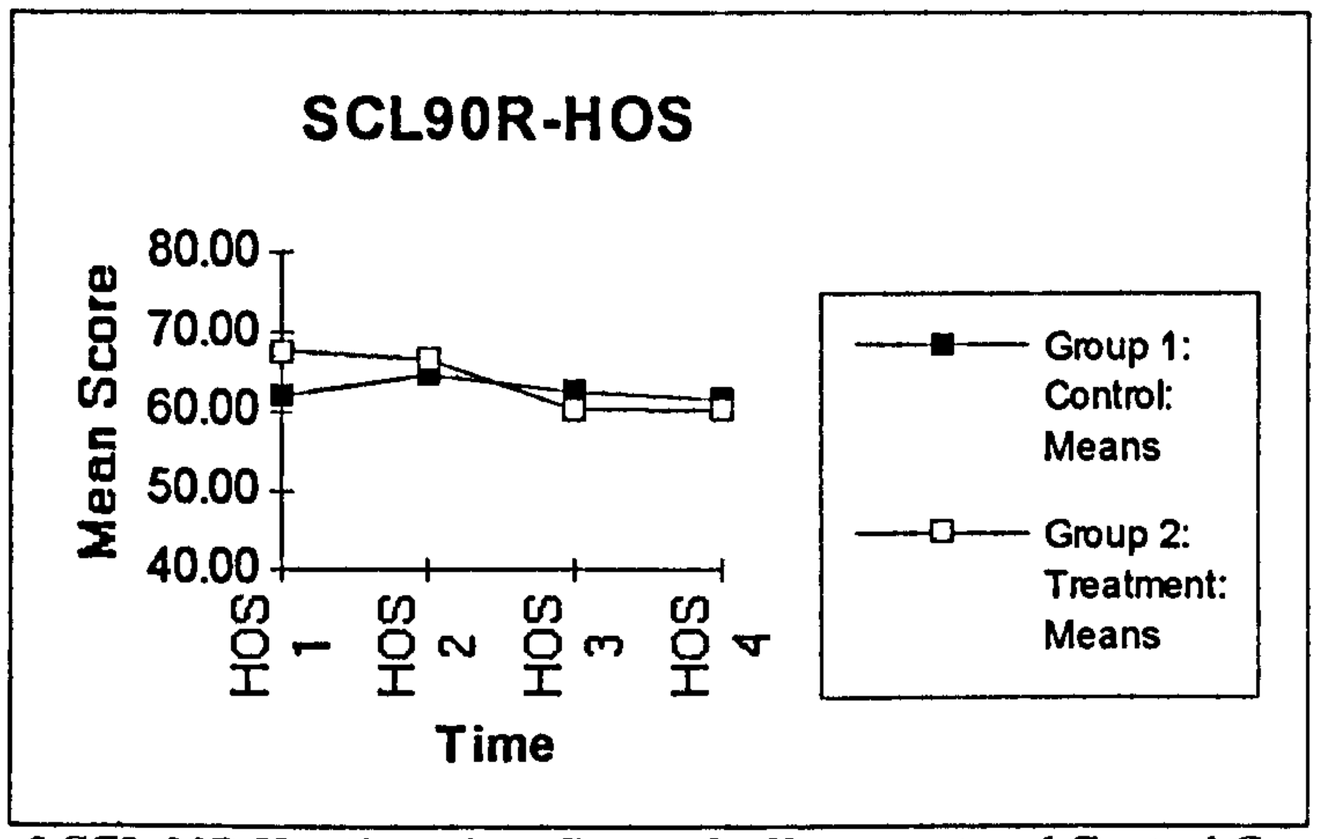

Fig.9 SCL-90R Hostility Mean Scores for Treatment and Control Groups

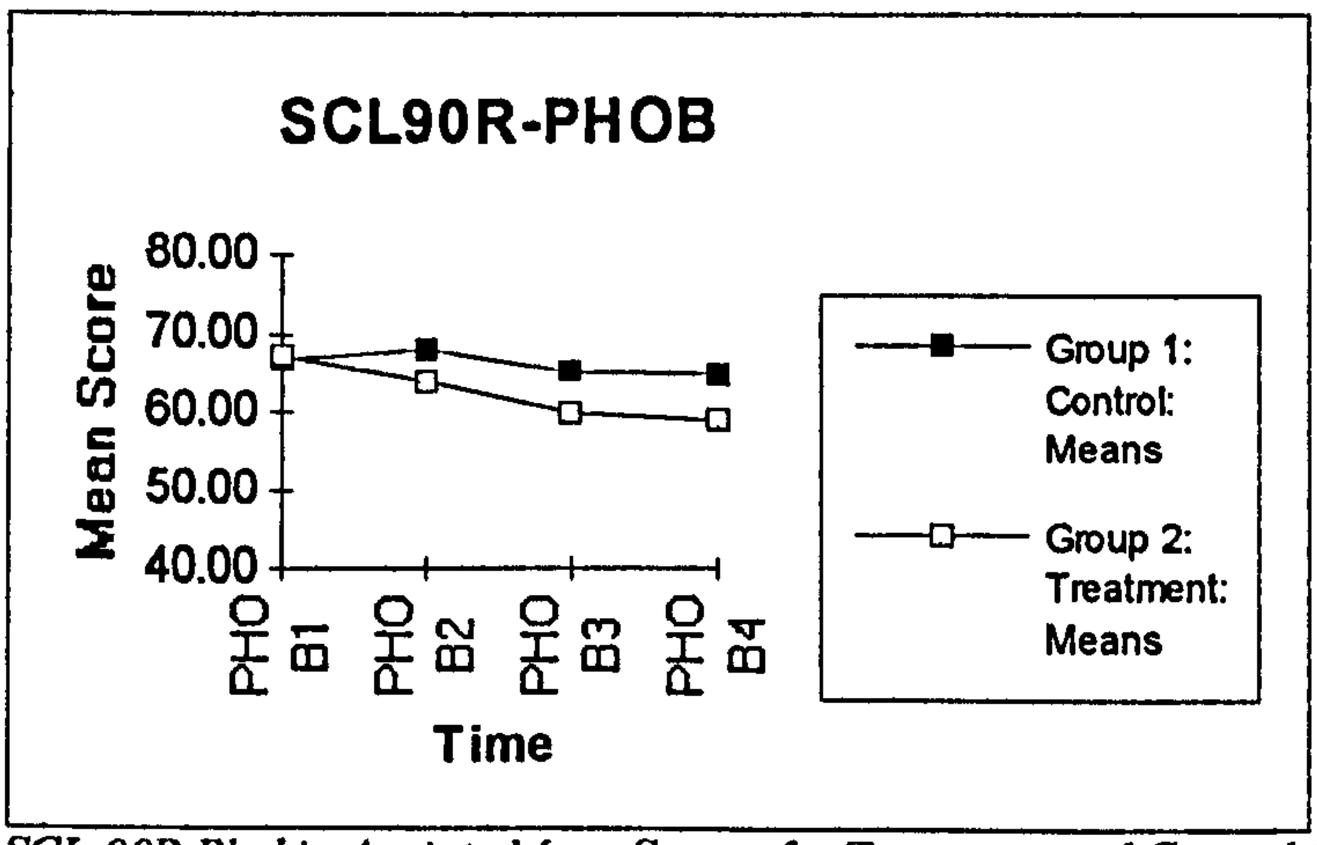

Fig 10 SCL-90R Phobic Anxiety Mean Scores for Treatment and Control Groups

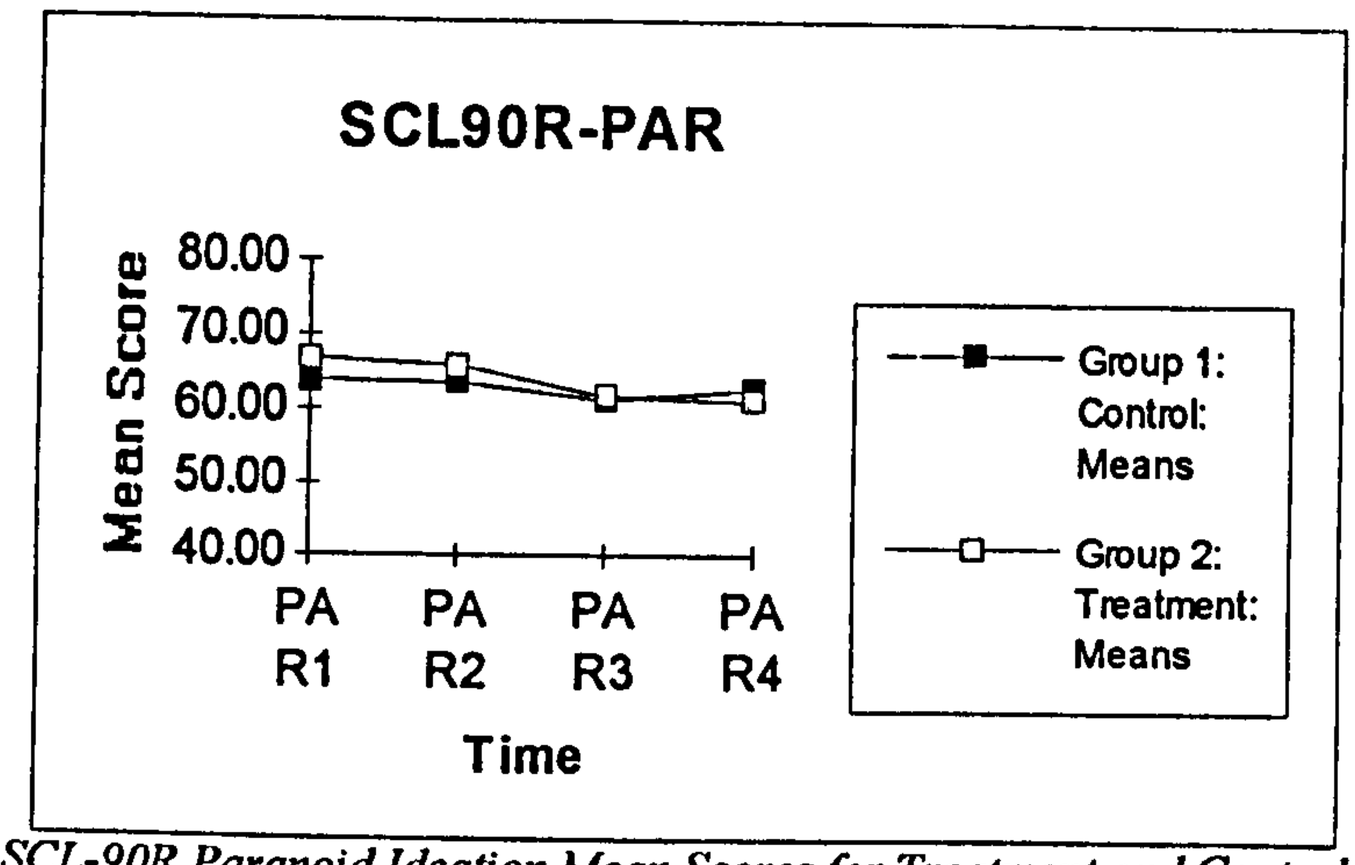

Fig.11 SCL-90R Paranoid Ideation Mean Scores for Treatment and Control Groups

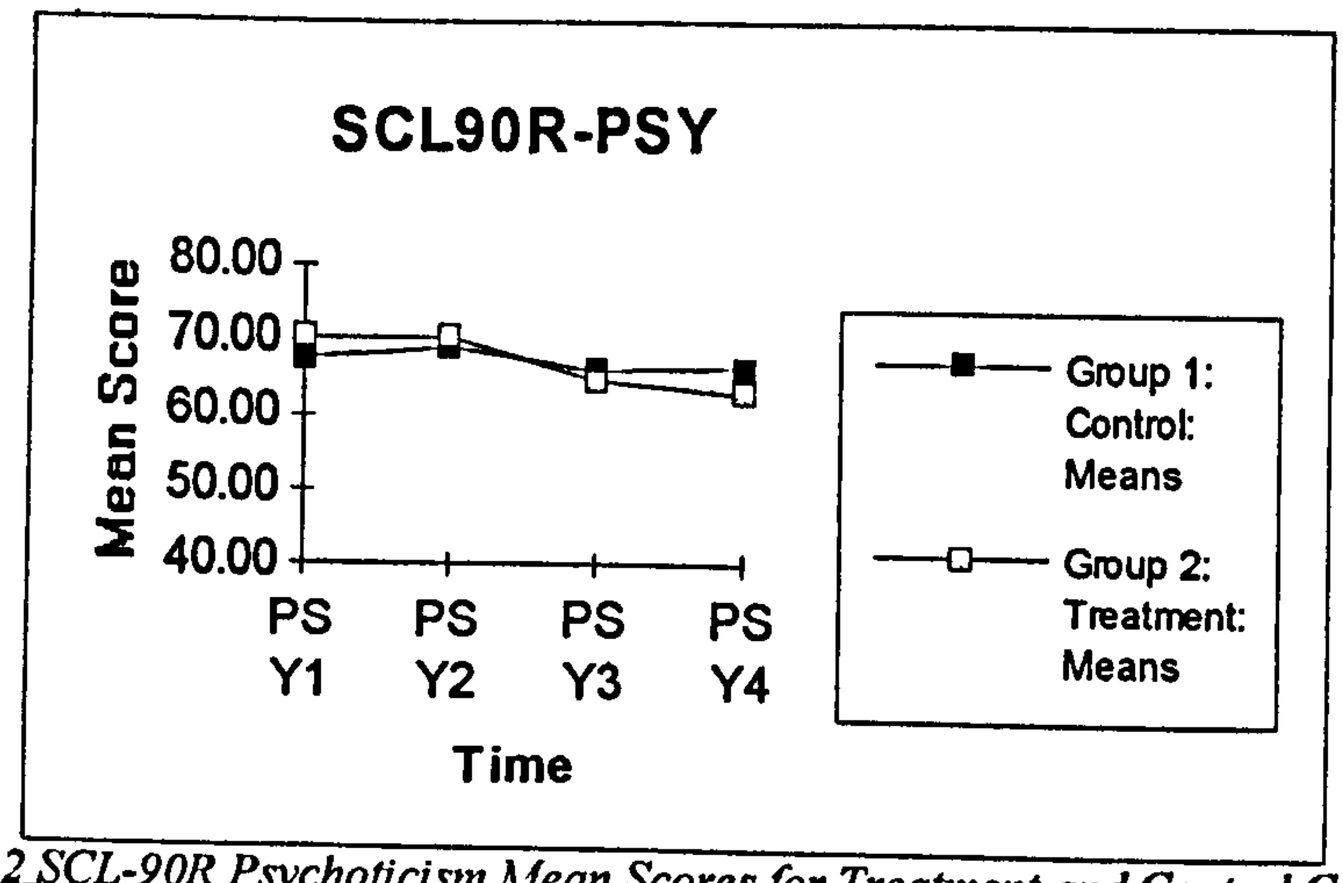

Fig.12 SCL-90R Psychoticism Mean Scores for Treatment and Control Groups

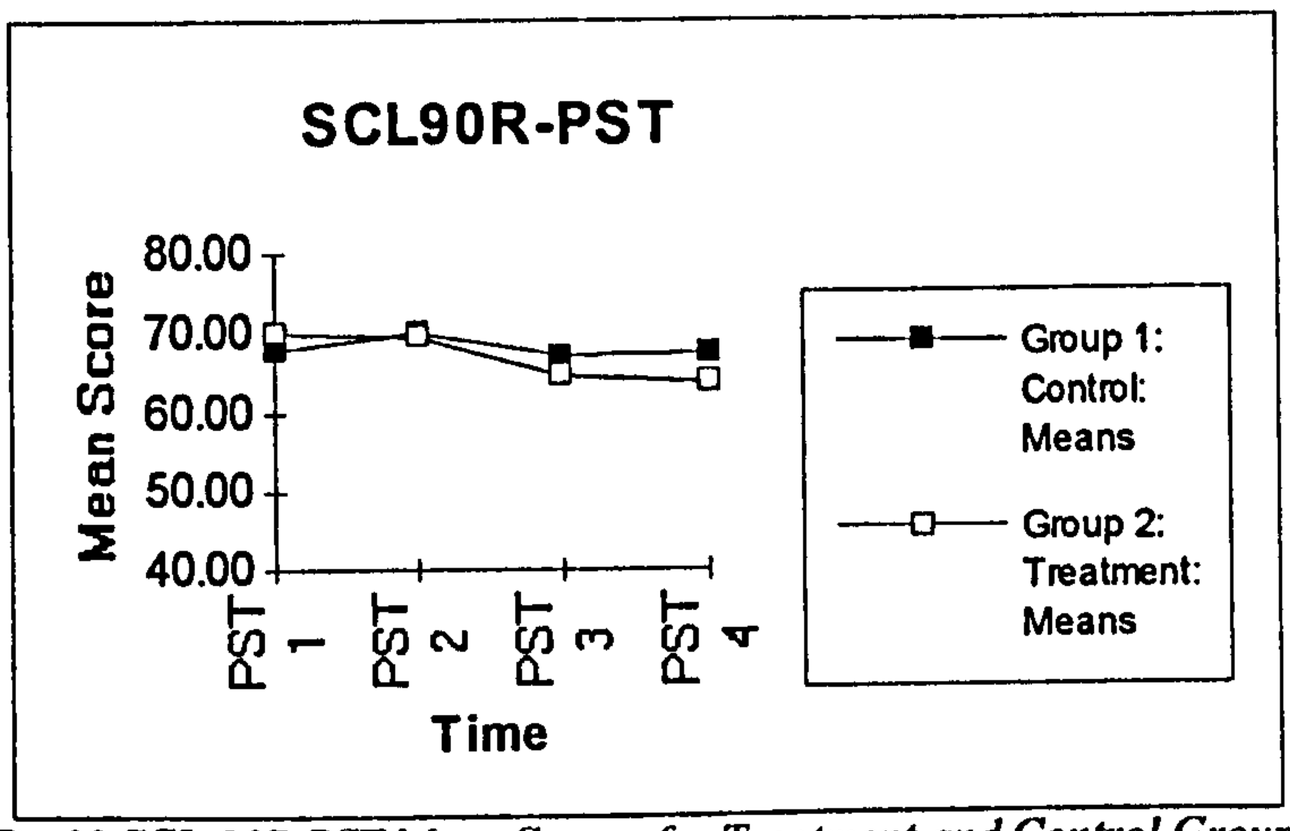

Fig.13 SCL-90R PST Mean Scores for Treatment and Control Groups

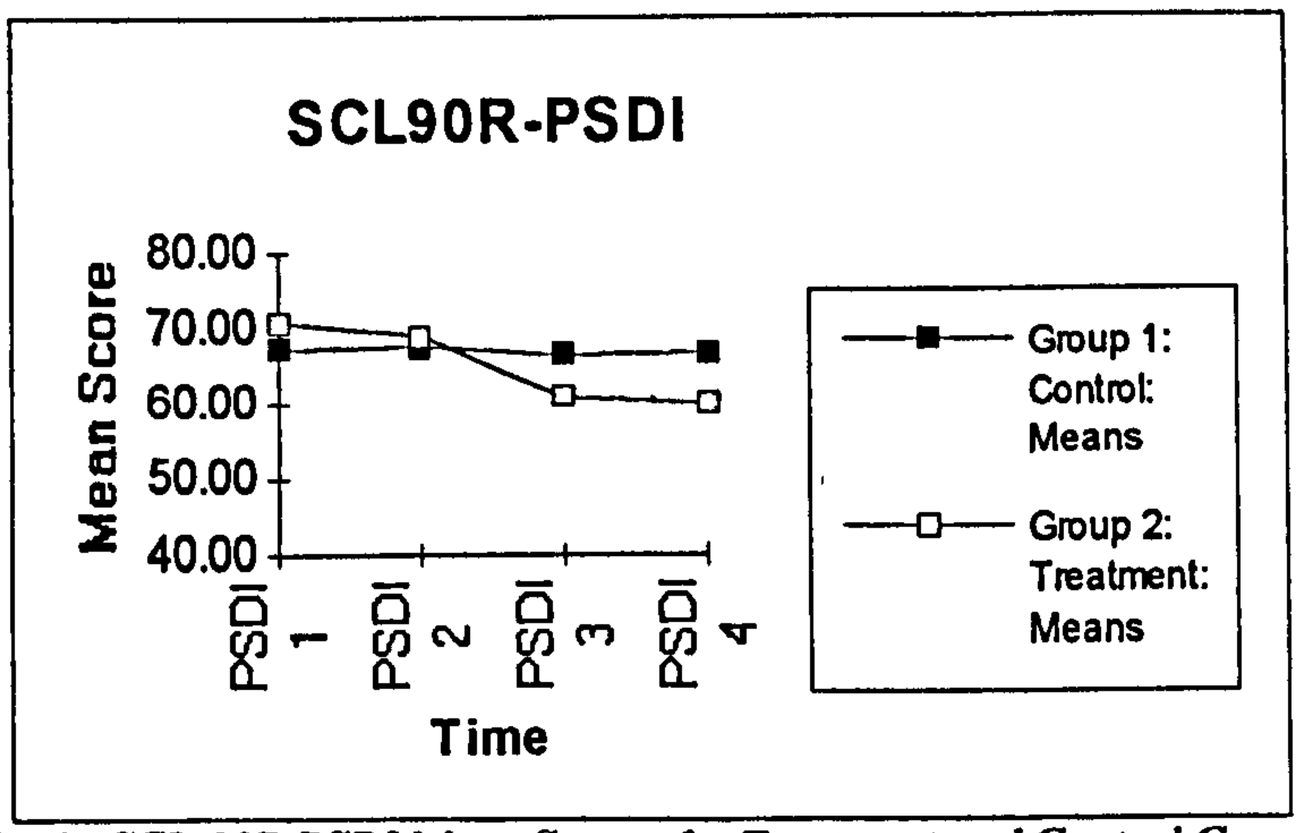

Fig.14 SCL-90R PSDI Mean Scores for Treatment and Control Groups

Summary of Data Analyses

The tables below (tables 4 and 5) show the mean scores and numbers of 'cases' for the control and treatment groups on each measure at eight weeks (stage 3) and sixteen weeks (stage 4) after start of treatment, and results of the between-groups comparisons (results of the within-group comparisons for the treatment group are in appendix 5).

Test and Stage	Group 1: Control	Group 2: Treatment	Between-group
	Mean (SD)	Mean (SD)	p
HAD Anxiety: 3	11.6875 (4.813)	9.3333 (3.654)	0.05*
HAD Anxiety: 4	11.4000 (4.102)	8.2703 (3.618)	0.009*
HAD Depression: 3	9.8125 (4.277)	7.4286 (3.877)	0.047*
HAD Depression: 4	9.4667 (3.441)	6.2973 (3.390)	0.004*
SCL-90R GSI: 3	70.1875 (9.261)	65.6190 (8.734)	0.085
SCL-90R GSI: 4	70.3333 (8.861)	64.3514 (9.093)	0.035*
SCL-90R SOM: 3	66.4377 (9.550)	58.8095 (11.167)	0.019*
SCL-90R SOM: 4	65.7333 (8.803)	60.7568 (10.917)	0.123
SCL-90R O-C: 3	68.0000 (9.550)	64.6190 (10.186)	0.256
SCL-90R O-C: 4	67.4667 (8.659)	63.6757 (10.244)	0.213
SCL-90R I-S: 3	67.4375 (11.087)	65.5238 (10.225)	0.536
SCL-90R I-S: 4	67.0667 (9.801)	63.2432 (10.412)	0.228
SCL-90R DEP: 3	70.4375 (9.668)	65.9286 (8.247)	0.081
SCL-90R DEP: 4	70.2667 (9.801)	63.7027 (8.595)	0.020*
SCL-90R ANX: 3	69.5600 (9.901)	62.3320 (9.042)	0.010*
SCL-90R ANX: 4	70.2012 (9.645)	61.8943 (9.324)	0.010*
SCL-90R HOS: 3	62.4375 (14.128)	60.2857 (10.083)	0.583
SCL-90R HOS: 4	61.4667 (11.837)	60.1892 (9.463)	0.684
SCL-90R PHOB: 3	65.3125 (13.108)	60.0952 (11.618)	0.146
SCL-90R PHOB: 4	65.2000 (10.352)	59.0000 (10.687)	0.062
SCL-90R PAR: 3	61.1875 (14.312)	61.7143 (9.353)	0.893
SCL-90R PAR: 4	62.6000 (12.614)	61.0000 (10.614)	0.643
SCL-90R PSY: 3	66.0625 (9.299)	64.8333 (7.796)	0.613
SCL-90R PSY: 4	66.2667 (9.550)	62.9459 (9.138)	0.247
SCL-90R PDSI: 3	66.3750 (9.736)	60.7619 (8.851)	0.040*
SCL-90R PDSI: 4	66.6667 (8.981)	59.8108 (8.666)	0.014*
SCL-90R PST: 3	67.3125 (8.467)	64.6667 (7.833)	0.266
SCL-90R PST: 4	67.5333 (7.736)	63.8378 (8.358)	0.147

Table 4: Mean Scores and Standard Deviations at stages 3 and 4 of testing, and Significance Levels for Between-Groups Comparisons

*Note: * indicates significance at 0.05 level*
*** indicates significance when Bonferroni Correction applied*

Test and Stage	Group 1: Control	Group 2: Treatment	Between-Group
			Chi-square
HAD Anxiety: 3	14 out of 16	28 out of 42	2.29
HAD Anxiety: 4	11 out of 15	18 out of 37	2.63
HAD Depression: 3	8 out of 16	15 out of 42	0.99
HAD Depression: 4	9 out of 15	10 out of 37	5.00*
SCL-90R GSI: 3	12 out of 16	27 out of 42	0.59
SCL-90R GSI: 4	11 out of 15	21 out of 37	1.24

Table 5: Number of 'cases' out of total number of participants at stages 3 and 4 of testing, and Chi-Square values for Between-Groups Comparisons
*Note: * indicates significance at 0.05 level*

The next table (table 6) shows the results from the monitoring of the number of visits to their GP made by participants in each group during the six months before and after treatment began.

	Mean:Before	Variance	Mean:After	Variance
Treatment Group	4.6666	5.5151	3.25	3.659
Control Group	4.1	2.1	4	2.4444
t-test: Treatment Group before-after			p=0.1200	not sig.
t-test: Treatment-Control Groups before			p=0.4725	not sig.
t-test: Treatment-Control Groups after			p=0.3064	not sig.

Table 6: Visits to General Practitioner in Six Months Before and After Start of Treatment: means and variances of treatment and control groups, and t-tests for significant differences

The next table (table 7) shows the Effect Sizes for all the measures, and the mean Effect Size, at 8 weeks (stage 3) and at 16 weeks (stage 4), after starting treatment. Effect Sizes are calculated by dividing the difference between the means of the treatment and control group scores by the pooled standard deviation.

Test	Effect Size Stage 3	Effect Size Stage 4
HAD A	0.28	0.4
HAD D	0.29	0.46
SCL-90R GSI	0.27	0.33
SCL-90R Dep	0.25	0.36
SCL-90R Hos	0.09	0.06
SCL-90R I-S	0.09	0.19
SCL-90R O-C	0.17	0.2
SCL-90R Par	0.02	0.07
SCL-90R Phob	0.21	0.29
SCL-90R PDSI	0.3	0.39
SCL-90R PST	0.16	0.23
SCL-90R Psy	0.07	0.18
SCL-90R Som	0.37	0.25
SCL-90R Anx	0.38	0.44
Mean Effect Size	0.27	0.32

Table 7: Effect Sizes for each measure, and overall Mean Effect Sizes, at Stages 3 and 4.

The results of the data analyses for each of the outcome criteria are summarised below.

Outcome criterion 1
There will be a significant difference between treatment group scores on HAD and SCL-90R scales at the start of treatment and at 8 weeks after starting treatment.

This criterion refers to the within-group comparison of mean scores of the treatment group at stages 2 and 3 of testing (details in appendix 5). The analyses, using *t*-tests for paired samples, show an improvement on all measures between start of treatment and 8 weeks later, and this improvement was statistically significant at the Bonferroni corrected level of 0.001 for all measures except for the SCL-90R Phobic Anxiety scale.

Outcome criterion 2
There will be a significant difference between treatment group scores on HAD and SCL-90R scales at the start of treatment and at 16 weeks after starting treatment.

This criterion refers to the within-group comparison of mean scores of the treatment group at stages 2 and 4 of testing (details in appendix 5). The analyses, using *t*-tests for paired samples, show an improvement on all measures between start of treatment and 16 weeks later, and this improvement was statistically significant at the Bonferroni corrected level of 0.001 for all measures except for the SCL-90R Phobic Anxiety and Somatization scales.

Outcome criterion 3
There will be a significant difference between treatment and control groups on HAD and SCL-90R scales at 8 weeks after starting treatment.

This criterion refers to the between-group comparison of mean scores of the control and treatment groups at stage 3 of testing (details in table 4 and appendix 6). The analyses, using *t*-tests for independent samples, show an advantage for the treatment group on all measures apart from the SCL-90R Paranoid Ideation scale (see figure 11). The advantage was statistically significant at the 0.05 level for HAD Anxiety, HAD Depression, SCL-90R Somatization and SCL-90R Positive Symptom Distress Index scales, but did not reach the Bonferroni corrected significance level of 0.001 on any of the measures. MANOVA for stage 3 produced a significance level for F of 0.366, not significant (see appendix 8).

Outcome criterion 4
There will be a significant difference between treatment and control groups on HAD and SCL-90R scales at 16 weeks after starting treatment.

This criterion refers to the between-group comparison of mean scores of the control and treatment groups at stage 4 of testing (details in table 4 and appendix 6). The analyses, using *t*-tests for independent samples, show an advantage for the treatment group on all measures. The advantage was statistically significant at the 0.05 level for HAD Anxiety, HAD Depression, SCL-90R Anxiety, SCL-90R Depression, SCL-90R Global Severity Index and SCL-90R Positive Symptom Distress Index scales, but did not reach the Bonferroni corrected significance level of 0.001 on any of the measures. MANOVA for stage

4 produced a significance level for F of 0.216, again not significant (see appendix 8).

Outcome criterion 5
There will be a significant difference between numbers of treatment group 'cases' according to HAD and SCL-90R scales at the start of treatment and at 8 weeks after starting treatment.

This criterion refers to the within-group comparison of numbers of 'cases' in the treatment group at stages 2 and 3 of testing. The analyses, using chi-square tests, show an decrease in numbers on all three measures of 'caseness' (HAD Anxiety, HAD Depression, and SCL-90R) between start of treatment and 8 weeks later, and this decrease was statistically significant at the 0.001 level (highly significant) in each case (anxiety; χ^2=11.31, p=0.001: depression; χ^2=12.19, p=0.001: SCL-90R; χ^2=8.87, p=0.001).

Outcome criterion 6
There will be a significant difference between numbers of treatment group 'cases' according to HAD and SCL-90R scales at the start of treatment and at 16 weeks after starting treatment.

This criterion refers to the within-group comparison of numbers of 'cases' in the treatment group at stages 2 and 4 of testing. The analyses, using chi-square tests, show an decrease in numbers on all three measures of 'caseness' (HAD Anxiety, HAD Depression, and SCL-90R) between start of treatment and 16 weeks later, and this decrease was statistically significant at the 0.001 level (highly significant) in each case (anxiety; χ^2=23.13, p=0.001: depression; χ^2=17.25, p=0.001: SCL-90R; χ^2=12.84, p=0.001).

Outcome criterion 7
There will be a significant difference between treatment and control groups on numbers of 'cases' according to HAD and SCL-90R scales at 8 weeks after starting treatment.

This criterion refers to the between-group comparison of numbers of 'cases' in the control and treatment groups at stage 3 of testing. The

analyses, using chi-square tests, show an advantage to the treatment group (i.e. proportionally fewer 'cases') on all three measures of 'caseness' (HAD Anxiety, HAD Depression, and SCL-90R) at 8 weeks after starting treatment (see table 5), but this advantage was not statistically significant at the 0.05 level (anxiety; χ^2=2.286, p>0.1: depression; χ^2=0.99, p>0.1: SCL-90R; χ^2=0.59, p>0.1).

Outcome criterion 8
There will be a significant difference between treatment and control groups on numbers of 'cases' according to HAD and SCL-90R scales at 16 weeks after starting treatment.

This criterion refers to the between-group comparison of numbers of 'cases' in the control and treatment groups at stage 4 of testing. The analyses, using chi-square tests, again show an advantage to the treatment group (i.e. proportionally fewer 'cases') on all three measures of 'caseness' (HAD Anxiety, HAD Depression, and SCL-90R) at 16 weeks after starting treatment (table 5), but this advantage was not statistically significant at the 0.05 level for the HAD Anxiety and SCL-90R measures, although it was for HAD Depression (anxiety; χ^2=2.63, p>0.1: depression; χ^2=5.00, p=0.05: SCL-90R; χ^2=1.24, p>0.1).

Outcome criterion 9
There will be a significant difference for the treatment group in the number of visits to the general practitioners in the six months before and after treatment.

In the six months before treatment began the mean number of visits made to their GP by members of the treatment group was 4.67. In the six months after treatment the number was 3.25. Thus there was a drop in visits. However the variances were large and this drop in visits was not statistically significant (see table 6) .

Outcome criterion 10
There will be a significant difference between treatment and control groups in the number of visits to the general practitioners in the six months after treatment.

In the six months after treatment the mean number of visits made to their GP by members of the treatment group was 3.25. For the control group the number was 4. Thus there was a clear decrease in visits by the treatment group that was not duplicated in the control group. Again however the variances were large and this difference in visits was not statistically significant (see table 6) .

Outcome criterion 11
The Effect Size shown by this study will be greater than zero.

Table 7 shows the calculated Effect Sizes for each measure at 8 and 16 weeks after treatment commencement. As can be seen, all Effect Sizes are greater than zero, indicating greater effectiveness of the treatment condition over the control condition. The 16 week mean figure is also greater than that for 8 weeks, showing increased effectiveness over the longer period. However the magnitude of these Effect Sizes is small: a small effect is around 0.25, a medium effect is considered to be in the region of 0.5 and a large effect in the region of 1.0. The largest effects found here are for anxiety and depression at stage 4, 16 weeks, and are in the medium range, but the overall Effect Size at 16 weeks of 0.32 is in the small to medium category.

Discussion

The Results

The graphical representations of the data in figures 1 to 14 give an overview of part of the results from this study. They show that on every measure there was a greater improvement in the mean scores of the treatment group than of the control group. This improvement can be seen to be most marked between stages 2 and 3, i.e. in the first 8 weeks of treatment (supporting the well know negatively accelerating positive relationship between number of sessions and improvement), but in most cases improvement continues up to 16 weeks, the final stage of testing (with the exception of the SCL-90R Somatization scale, where something of a relapse is evident). Table 4 summarises this data. We can say then that the treatment group shows an improvement in scores after treatment, and that that improvement is greater than that of the control group. In terms of statistical significance, however, only the first of these claims is supported by the data analyses. Over the 16 weeks post-treatment, the improvement of the treatment group was statistically significant at the Bonferroni corrected level of 0.001 on all measures bar Somatization and Phobic Anxiety. When compared to the control group, however, we find that the advantage of the treatment group was not sufficient to achieve statistical significance at this level, although at the 5% level a number of the differences were significant (the SCL-90R global measures GSI and PSDI, as well as the anxiety and depression dimensions on both HAD and SCL-90R). Multivariate analysis of variance also did not achieve significance when the two groups were compared across all measures at either stages 3 or 4 (Stage 3, p=0.366; Stage 4, p=0.216; see appendix 8 for details).

As indicated in the introductory sections, a number of authors (such as Roth and Fonagy, 1996) have suggested that clinically significant change, as opposed to statistically significance change, might be better indicated by looking at categorical rather than continuous data, using criteria of recovery. Therefore this study measured changes in 'caseness' numbers as well as scores on the tests used, implementing the definitions of 'caseness' given by test authors. The results of the within-group comparisons for the treatment group show reductions in the number of 'cases' over both 8 and 16 weeks that are highly significant, but again, when compared to the control group (see table 5) the advantage is not great enough to reach statistical significance, apart

from in the case of the HAD Depression scale. Perhaps a clearer way of looking at these figures is in terms of percentages, however: between the first and last stages of testing, the percentage reductions in numbers of 'cases' were as follows:

Control Group: HAD Anxiety 13%; HAD Depression 11%; SCL-90R GSI 27%.
Treatment Group: HAD Anxiety 48%; HAD Depression 61%; SCL-90R GSI 40%.

This indicates more clearly the degree of clinical effectiveness of the service, and in particular its effectiveness for depressed patients.

The third indicator monitored was number of visits to the GP. Table 6 shows that again the treatment group did better than the control, with a larger reduction in the number of visits after treatment. Once again, however, the difference was not statistically significant.

Finally, Effect Sizes were calculated, as recommended by King (1997) and others. The results were greater than zero on all the scales used, reflecting the greater effectiveness of the psychological interventions over the routine GP care that is indicated in the paragraphs above, but the sizes were small, reflecting the non-significant nature of the advantage: the overall mean Effect Size at 16 weeks was 0.32. This is close to, but greater than, the figure of 0.23 that was the outcome of Corney's 1992 meta-analysis of eleven studies in the primary care setting.

Meta-analytic studies that have compared therapy with no therapy have often found Effect Sizes in the region of 0.85 (e.g. Smith and Glass's original meta-analysis of 1977). The much smaller effect seen in this research and in others done in primary care can be explained firstly by the control condition involving 'routine GP-care' rather than no treatment as in the majority of the major studies. Such routine care may in many surgeries include a significant amount of psychotherapeutic counselling, especially if a number of the doctors are interested and skilled in working with emotional distress, as they are at the surgery that was the location of this research. Secondly, as has been pointed out previously, primary care work is often shorter, more interrupted, less specialised, and less protected by lengthy referral processes than the secondary clinic work that has been the focus of the major studies (some of which have involved carefully set-up and monitored courses of therapy existing as if in a vacuum, i.e. have been trials of efficacy rather than effectiveness).

In relation to the two hypotheses of this study, we can say the following:

Hypothesis 1: The treatment group did show an improvement after treatment, in scores, in numbers of cases, and in numbers of visits to the GPs; the first two of these measures were statistically significant. Therefore the null hypothesis, that the treatment group would show no improvement after treatment, can be rejected.

Hypothesis 2: The treatment group did show an advantage over the control group in scores, in numbers of cases, and in numbers of visits to the GPs; in the majority of cases however this advantage was not significant at the levels required, and multivariate analysis of variance of the combined data also did not show significance. On this basis the null hypothesis, that the treatment group would not show a greater improvement than the control group, cannot be rejected. However a positive Effect Size was found, indicating that there was a true, if modest, advantage to the treatment group. In terms of percentage reduction in numbers of cases, the treatment group was clearly superior.

To summarise, the results of this research demonstrate that the counselling psychology service under study was clinically effective. On all indicators used, clients of the service improved over the period of treatment, and did so to a greater extent than patients in the control condition. However the advantage over the control group was not sufficient for statistical significance at the levels required.

Looking more closely at the data, a number of points of further interest emerge. The SCL-90R dimension entitled Paranoid Ideation (PAR), for example, emerges as the category least ammenable to treatment in this study. Its defining characteristics, which include hostility, grandiosity, and delusions, go some way to explaining this and indicating that clients scoring high on this dimension may not be suited to short-term primary care interventions. Psychoticism (PSY) fared better, perhaps surprisingly until one notes that it is defined so as to include "mild interpersonal alienation" as well as first-rank symptoms of schizophrenia (Derogatis 1994). Depression showed the greatest proportional reduction in numbers of 'cases', indicating both the tractability of this condition to primary care interventions and perhaps

an effect of the author's interest in the condition on his therapeutic performance.

Another interesting outcome, that can be seen in the results of the t-tests for independent samples by sex in appendix 7, is that whereas at stage 1, entry, there were no significant differences between the sexes in severity of symptoms on any of the measures, by stage 4, after treatment, females had improved more than males on all measures, in some cases to significance at the 0.05 level and in a few cases approaching the Bonferroni corrected level of 0.001 (e.g. SCL-90R ANX and DEP). It is not clear why this should have been the case; a gendered bias in GP referring practice, an artefact of the measures used, the techniques or personality of the therapist, the gender of the therapist? Or do women just make better patients for primary care psychotherapeutic interventions? The greater willingness of women to come for psychological help when in distress has been long noted; does this mean that the male participants, although apparently suffering no more severely at entry, were in actuality more intractable in the *way they experienced their distress*, at least in relation to the short-term interventions studied here?

Methodological Issues

The question of internal versus external validity arose a number of times in the introduction to this research, and it demands further attention here. It has already been pointed out that according to Michael Barkham the attempt to balance the conflicting requirements of internal and external validity will always result in a less than ideal design in practice, and that recently the balance has perhaps tipped more towards external validity, especially in the NHS with demands for 'value for money'. McLeod too has talked of the difficulties of trying to achieve this balance, and of how, particularly in primary care, the traditional RCT design is highly problematic (1995). King (1997) also acknowledges this, although he maintains his view that despite the difficulties it is only through RCTs that progress will be made. Roth (1997) has recently asked for more evidence from all three types of outcome design: the open trial, where there is a waiting list control but no randomised comparison group (high external, lower internal validity); the RCT (high internal but dubious external validity); and the single case-study. Another criticism of RCTs has been made by Bergin who suggests that the design, originating as it does in drug trials, assumes that the client is a passive recipient of a treatment technique, whereas for Bergin it is the mutual responsiveness of the therapeutic relationship that is important. He calls for "postmodern flexibility, research pluralism, and clinical pragmatism and eclecticism" (1997). It is also interesting to note that amongst the medical stakeholders there is an increasing awareness that psychotherapy evaluation is not the same as drug evaluation. Richardson writes in the British Medical Journal, for example, that "Evidence that reaches the highest standards of methodological rigour (from well conducted RCTs) is least typical of ordinary clinical practice in this field, where the conditions of the controlled trial are least likely to apply" (Richardson 1997). In this research study I have attempted to combine elements of the open trial and the RCT so as to have external validity as the primary aim but also to maintain a degree of internal control.

If we consider the details of internal validity first, we can list a number of potential threats to the internal validity of an experimental or quasi-experimental design and see how each applies to this particular study.

Starting with the participants in the study, we can ask whether differences in history, i.e. background, and maturation, i.e. ageing during the study, might affect the results. There is no reason to believe that there were significant differences in background between treated and non-treated participants, however (see below for details of age and gender distributions), and any maturational factors would be slight over the period of this study and evenly distributed across groups. Did being tested make a difference for some participants? While it was noticeable that some participants spent much longer thinking about and completing the tests than did others, all considered the testing to be an integral part of the service being offered by either myself or their doctor, and so this is not likely to have been a source of contamination.

Medication must be considered here: for practical reasons the study did not include monitoring of participant's medication, and therefore it is not possible to say whether equal proportions of the treatment and control groups were taking relevant medication during the study. From experience, the practice involved in the study makes quite wide use of new generation SSRI drugs, and a high proportion of patients in both groups could be expected to be prescribed these. Many patients of course do not comply with antidepressant prescriptions, even if of the newer drugs which have fewer side effects. What we can reasonably surmise is that patients in the control group, who were seeing their doctor on a regular basis, would have been more likely to stick to their prescribed medication or to have been changed to another more acceptable one, than patients in the treatment group who may have had little further GP contact for some time after referral. In fact, some participants may well have self-selected their group on the basis of their feelings about the effectiveness of medication as opposed to psychotherapeutic help, and therefore their compliance. In either case, if we accept that relevant medication can be effective in reducing symptoms, this would act in favour of the control group as far as the results of this study are concerned. The advantage seen in the results for the treatment group can therefore be considered to be perhaps greater than is evident.

Also of importance was the selection and allocation of participants. Ideally participants should have been allocated at random to treatment and control conditions, but as pointed out already, this proved impossible. The original protocol called for the GPs to make a clinical judgement according to their normal criteria as to whether to refer a

patient to me or not, taking into account the patients' preferences. Where there was no strong preference and no urgent clinical reason for referral, they were asked to make a randomised choice. This they found almost impossible to do, feeling that all indications of psychological distress should result in referral, unless the patient (a) refused referral, or (b) was considered in some way 'beyond treatment' (this usually meant someone whose symptoms had already proved resistant to varied interventions over many years). The latter were not included in the study, but the former constituted the GP-care only control group. The distributions of age, gender and diagnosis for this group show very little difference compared to the treatment group, and the initial HAD and SCL-90R scores were also very similar for each group, especially at the start of treatment (stage 2 of testing). This considerably reduces the importance of the failure of the randomisation process in this study.

It is interesting to note the comments of King et al.(1994) with regard to this topic. In their study they too found that the doctors involved disliked carrying out the randomisation and directed most patients to the counsellor. Randomised clinical trials, they suggest, challenge the traditional identification of physicians as *either* clinicians or researchers and may lead to tensions in the doctor-patient relationship. They also point out that although it is vital to take patient preferences into account in the randomisation protocol, GPs can and do influence those preferences: "The doctors remarked that they could easily suggest to patients that consulting the counsellor might be helpful and thus patient choice was not always unbiased. Although we believed that GPs might feel more in control if they were given the task of randomisation, it was clear that they felt uncomfortable in this role."

A further aspect of allocation is the blindness of the design. Ideally allocation should be done by a third party performing the randomisation, and assessment of clinical change should also be done blind by an independent assessor. Both of these processes greatly increase the complexity of a study and were impractical in this case, and in any case the involvement of the GPs in the allocation was felt to be important, for the reasons discussed above and also for external validity. Finally, although blind assessment was not done, the tests used involved self-reports rather than being reliant on therapist/researcher assessment of change and so were less open to 'experimenter' bias.

Another potential threat to internal validity associated with selection and allocation is regression to the mean due to the use of extreme groups or narrow ranges, but there is no indication that this was the case in this study. Similarly, diffusion of treatments (contamination due to participants in different groups communicating), demoralisation effects (the control group not trying) and compensatory rivalry (the control group trying harder) can be discounted since all participants understood that they were receiving or were waiting to receive treatment in accordance with their wishes or the advice of their doctor. Equalisation of treatments, when others attempt to make up any perceived deficit for the control group, is a factor that must be considered in this study, however. It could be, for example, that the GPs tried harder and gave more time than normal to the patients enrolled in the trial that they were not referring on, in order to demonstrate their own skills or effectiveness. King et al.(1994) found that to be the case in their own research, some doctors failing to understand that they were intended to provide routine care to patients randomised to them and instead attempting to counsel patients in a way that was too time consuming. The emphasis on external validity in the present study, however, was such that it seemed to the researcher that the GPs soon forgot that certain patients were or were not participating, such was the degree to which the research was embedded in the busy day-to-day clinical activity of the surgery. However it should be pointed out here again that some at least of the doctors involved had both interest and skill in dealing with psychologically distressed patients, and so routine care for those patients would involve a degree of psychotherapeutic treatment anyway.

Local history refers to potential contamination from the members of the different groups being treated differently by researchers, outside of the intentional protocols of a study. An example would be researchers indicating by their informal comments to participants in a group that they were expected to score more, or less, highly than members of other groups. In the case of this study, the same, written, instructions and explanations were given to all participants at enrolment and each stage of testing, although of course it was not possible to know if the GPs made any comments to participants that may have been biased to a particular group, but this is unlikely given the situation outlined in the previous paragraph. Another facet of this, and one that links issues of internal to those of external validity, is whether the therapist, myself, tried harder with the treatment group than I would do normally with

clients who were not participants in a trial, in order to boost the results. I will take up this question later when considering external validity.

Two further threats to internal validity remain. The first concerns the reliability and validity of the instruments used. This has been discussed in the method section, where evidence was presented to support the choice of tests. It must be mentioned here though that the length, detail, and content of the SCL-90R clearly caused problems for some participants. This was shown by the pattern of responses in some cases, and the behaviour of the respondents (when completing the tests in the presence of the researcher), which indicated at times a running out of patience with the task of filling in this particular test. Also a small number of participants missed out a number of questions that they found, as they later commented, too personally intrusive (e.g. those to do with sexual interest or pleasure) or insulting (e.g. those referring to hearing voices or being controlled by others). It is difficult to assess whether this applied disproportionally to one group or another, however. Barkham and Barker (1996) have suggested that the tests used as outcome measures should be easy to use, relatively short, clinically sensitive and psychometrically sound, supported by normative data, atheoretical, and cheap. Of course no one test can combine all those criteria, but it is postulated that by using both the HAD and SCL-90R in this study most have been satisfied, and in fact Barkham and Barker suggest using more than one measure for this reason.

The final threat is called attrition, or sometimes mortality, and refers to participants who drop out of the study: was there any bias in the dropping-out that may have undermined the equivalence of the groups? Roth and Fonagy (1996) point out that the stage at which patients are lost will have differing impacts on validity. Early loss may disrupt randomization of treatment and therefore threaten internal validity. Even if there is no differential attrition, it may be that significant losses could lead to results applicable only to a sub-group of persistent patients, threatening external validity. Reporting of data on an 'intention-to-treat' basis, as well as just for those completing therapy, is one way of addressing these problems, and therefore the data for this study includes all scores received, even if the participant subsequently dropped out of treatment and/or completed no further tests.

As far as the attrition rate is concerned, 11 out of the 70 participants who were enrolled, all of them in the treatment group, completed only

one or two of the four testing stages and were not seen again for therapy or did not respond to written requests. This is 15% attrition, which can be compared to rates cited from the literature by King (1997) of 8% in highly controlled research centre studies and up to 30% and even 60% in studies in public mental health centres. Most attrition occurred early in treatment and if the randomisation protocol had been adhered to this may have compromised it, but as little randomisation actually took place this is not an issue. Instead, the attrition can be seen as reflecting real-life experience in providing this sort of service. The problem is that all the attrition was from the treatment group, thereby skewing this group towards more persistent and perhaps more motivated clients, and thus working to increase the levels of improvement seen in the treatment group when compared to the control group. The differential rate of attrition is perhaps not surprising though, given that the treatment group was the active condition; the control group had only to complete and return their questionnaires.

Going on to consider the issue of external validity, four questions can be asked of a study such as this. Firstly, is the sample representative of the population in question? Secondly, have the hypotheses been operationalized appropriately? Thirdly, have satisfactory parameter values been used, for example for the length of therapy? Finally, have demand characteristics played a part in determining participant responses?

The sampling procedure used in this study was simple: all patients referred to the author after the start date were invited to participate, as were patients presenting to their GP with psychological problems but not being referred on to me. A small number refused or did not return their questionnaires, but most agreed to take part and there is no reason to suppose that this sample was not representative of the patients seen by this service year on year, and to a lesser but still noteworthy extent, of patients seen by similar services throughout the area.

Operationalisation in this context refers to the ways in which the research objectives have been translated into measurable hypotheses and outcome criteria. Are the measures appropriate, or are they too narrowly defined, or too broad to have any meaning? In this case the research focus, outcome of therapy, has been measured by changes in symptom severity and spread as indicated by scores on two self-report instruments, the HAD scale and the SCL-90-R. There is considerable

debate over the most appropriate ways of measuring changes over the course of therapy, as has been discussed in the introductory section. At one level this is a quantitative versus qualitative debate, and this study was limited by not including qualitative factors, but even within each of these domains the best methodologies and instruments are argued over. As has been pointed out, no design will be without drawbacks. A second aspect of this issue, however, relates to statistical versus clinical significance. Roth and Fonagy (1996) argue that researchers can reject a null hypothesis at high levels of statistical significance and yet may not be able to show any clinical impact, and King (1997) reiterates this warning. They suggest using criteria of recovery (such as scores below a certain threshold value for 'caseness') to give categorical rather than continuous scoring of outcomes, or using effect size data, to more clearly indicate clinical changes. In this study, using the recommended caseness threshold for SCL-90R scores of a GSI or any two primary dimension scores being greater than or equal to a T score of 63, a significant reduction in 'case' numbers was found over the treatment period in the treatment group, and this was greater than that seen in the control group, although the difference between the two groups did not reach statistical significance. On the HAD scale possible caseness is indicated by a score of 8 or above and probable caseness by a score of 11 or above, and similar results were found. Expressed as percentages, the reductions in numbers of 'cases' were as follows: Control Group: HAD Anxiety 13%; HAD Depression 11%; SCL-90R GSI 27%. Treatment Group: HAD Anxiety 48%; HAD Depression 61%; SCL-90R GSI 40%. This shows more clearly the clinical effect of the service.

The parameter values used in this study refer to the length of therapy and timing of follow-up. As has been pointed out already, Barkham emphasises the importance of these being appropriate to the objectives of the study, and Roth and Fonagy expand on this by recommending pre-, mid-, and post-treatment testing and then follow-up at three months, while acknowledging that, firstly, some disorders have a natural history of relapse that requires much lengthier follow-up, and secondly, that the longer the follow-up the greater the contamination by external life-events.

In this study clients were tested at referral, at first appointment (roughly eight weeks later), after eight weeks of treatment and after another eight weeks, although some flexibility was necessary in these timings

for practical reasons. The eight week period was chosen to fit in with the predominantly short-term nature of the therapy, most clients having around four appointments. Some however were still in treatment at the time of the fourth testing, either through having less frequent appointments or a lengthier period of treatment. A therapy length of approximately four sessions and a follow-up time of two months are on the short side, but the former reflects the reality of primary care practice (most studies in this environment find a mean number of appointments of about four, and many clients who leave treatment as soon as they feel better, rather than at an agreed point of termination after review - one commentator has called this 'brief therapy by default' - see Hudson-Allez 1997) and the latter the practical difficulties of chasing up clients after treatment.

Demand characteristics can confound results when participants behave in atypical ways because of their expectations of the situation. Thus in a psychotherapy trial patients may endeavour to produce outcome scores indicating greater (or lesser) progress if they believe that 'their' therapist is under scrutiny in some way. In this study it was emphasised to clients that the testing was a part of the treatment programme and did not indicate a separate 'trial' situation, in order to reduce this possibility. However an associated problem applies to the therapist/researcher as suggested above with reference to internal validity: did I try harder with clients in the study than with other clients, in order to produce more flattering results? Whilst it is of course impossible to give a negative response to this question with certainty, what I can say is that anyone who has provided psychological therapy services in a primary care setting will know that the weight of work, the waiting lists, the constant demands and hurley-burley of the setting, make it most unlikely that one would 'try harder' with any one client than another purely for research purposes. Nevertheless Roth (1997) does list this as one of the possible confounding factors in trials that are controlled but not blind.

Limitations of this study and suggestions for further investigation

As has been suggested previously in this study, research designs in the field of psychological therapy outcome evaluation can never satisfy all the diverse requirements we might have of them. This is because the demands of internal and external validity pull in different directions. The present study can be criticised from either standpoint, but movement towards the greater satisfaction of one set of requirements inevitably further compromises the other. Nevertheless it is possible to identify a number of shortcomings in this research.

Firstly, the character and size of the sample. It was pointed out in the method section that the population in question, and the sample derived from it, was and is almost completely homogeneous in cultural background. It was also pointed out that the baseline scores were rather higher than those found in a large English study. It has been suggested by one local GP that people in this area of Wales are "not backwards in coming forwards" with any sort of upset or distress, and do not exhibit the emotional reserve that may be found elsewhere in these islands. If this is the case, it needs to be taken into account when generalising from these results. Then the small size of the control group is a clear limitation. The overall sample size was 70. Of these 54 were in the treatment group and 16 in the control group. Although these are relatively small total numbers, it should be remembered that participants were tracked over eight or more months and through four stages of testing, giving a total of approximately 250 test administrations by the author. Nevertheless, the failure of the results of the MANOVA and t-test comparisons between the scores of the two groups, and of the chi-square comparisons between their levels of 'caseness', to reach statistical significance may in part be due to insufficient numbers, especially as all the indicators point to the clinical superiority of the treatment condition. The group sizes in fact gave an observed power to detect a significant difference between the groups at the 0.05 level of 58% at stage 3 and 66% at stage 4; these are on the low side and are reduced still futher if a more rigorous level of significance is applied.

43 of the treatment group and all 16 of the control group completed at least three of the four stages of testing. Thus attrition was quite different for the two groups, and the implications of this have already been considered.

The smaller size of the control group allows any confounding variables to exert a greater influence on the group result, and this was made more likely by the failure of the randomisation protocol that was one of the causes of the paucity of numbers. On the other hand, the baseline characteristics of the two groups were very similar, which provides some reassurance. Nevertheless it is possible that the control group contained a greater proportion of patients resistant to improvement for one reason or another, despite the similarities in baseline scores. This resistance to treatment and improvement may have been symbolised by their initial choice of GP care rather than referral to the psychologist. The effect of this, in conjunction with the effects of the differential attrition rates already discussed, would be to artificially increase the gap between the final scores of two groups.

The waiting list control condition (i.e. the repeated measures design) was used in addition to the independent measure control group to reduce any overall damage done to the study by potential problems with recruitment to the control group.

Secondly, the failure of the randomisation protocol changed the nature of the study, pushing it further from the internal end of the validity spectrum and resulting in two mainly self-selected groups. It also resulted, as pointed out above, in a control group that was considerably smaller than the treatment group and smaller than ideal for statistical analysis. What became evident during the research was the difficulty in both trying to embed a study such as this in the routine provision of a primary care psychology service, and at the same time trying to maintain a research protocol that called for additions, however minor, to the procedures followed by general practitioner colleagues.

Thirdly, the follow-up period of eight weeks was clearly less than ideal. Roth and Fonagy (1996) refer to the natural history of psychological disorders, and point to the limited utility of follow-up periods that take no cognisance of these times of remission or reoccurrence. However in practical terms longer follow-ups become increasingly difficult to do, and it can also be argued that the effect of a service such as the one in question, situated in the front line of community work and offering limited interventions, can be assessed with some confidence even in such a comparatively short period.

Fourthly, a greater range of indicators could have been employed in addition to the two self-report schedules and the changes in number of visits to the doctors that were used. For example, changes in levels of prescribing of relevant medication, in conjunction with the measures that were used, would have given a fuller impression of any quantitative changes resulting from treatment, and if supplemented with subjective data, say from structured interviews with a sample of the participants, a more rounded quantitative and qualitative picture of the clinical effect of the service.

Of course clinical effectiveness is not the same as cost-effectiveness, and a further extension of this work might involve a calculation of the cost-effectiveness of the service based on the treatment outcome data and other factors. This would involve using one of the techniques of economic evaluation such as cost-effectiveness analysis, cost-benefit analysis, or cost-utility analysis (see e.g. Tolley and Rowland, 1995). The first of these relates the costs of different forms of treatment to their outcomes and produces measures such as cost per successfully treated patient. Cost-benefit analysis compares the benefits of a given treatment with the associated costs, all expressed in monetary terms. Cost-utility analysis relates the costs of treatments to improvements in quantity and quality of life, using a measure known as the quality adjusted life year gained or QALY. Whichever technique is chosen, it is necessary to collect data on the costs of treatment in addition to the outcome data, however that is measured. Costs might include the therapist's time and the use of rooms and any other resources, expressed in common units and compared with the costs of, say, treatment with drugs only. In the case of this study, the time input of the psychologist and secretarial support, running expenses, additional overheads and drug prescription charges for the treatment group would have to be costed and compared to the costs of the time input of the GPs and the prescription costs of the control group, and both would then have to be related to the outcome data for the two groups. From such calculations the average cost-effectiveness or ACE of each option, i.e. the cost per unit of outcome, could be determined. In situations such as this it is likely that the ACE of the GP-care only option will be better than that of the treatment option, even though the latter may produce better outcomes, because the costs as measured are so much lower. It then becomes important to look at the incremental and marginal cost-effectiveness of the service. The incremental cost-effectiveness refers to the additional costs involved in achieving the

superior outcome, whilst marginal cost-effectiveness refers to the cost-benefit balance at any particular level of provision of the service. Decisions then have to be made by the stakeholders about whether the levels of additional benefit are worth the extra costs incurred.

Because of the difficulties in achieving accurate and detailed costings of different treatment options, cost-effectiveness evaluation in addition to outcome measurement can be very time-consuming. The evidence in the literature is limited. Most UK studies that have included the costs of counselling in their evaluations have fallen short of doing a full economic evaluation, and have presented the cost and outcome data in a variety of ways, making comparison difficult. Cost-effectiveness ratios (i.e. cost per unit of outcome) are rarely computed in these studies. An example of this is the Edinburgh primary care depression study (Scott and Freeman 1992), which looked at outcome data and costs of drug therapy, counselling, and routine GP care. The results indicated that counselling was the most effective option but also the most expensive by some way. The costing details and methodology, however, are described only briefly and it is therefore difficult to generalise these findings. There is a need then, for an outcome study such as the one that is the subject of this thesis to be supplemented by a full and detailed economic cost-effectiveness analysis.

Conclusions

In conclusion, the results of this research demonstrate that the counselling psychology service under study was clinically effective. On all indicators used, clients of the service improved over the period of treatment, and did so to a greater extent than patients in the control condition. However the advantage over the control group although significant at the 5% level on the main indicators, was not sufficient for statistical significance at the required 0.1% level, or on multivariate analysis of variance, and this was reflected in the small-to-medium effect size of 0.32.

The results are similar to those of some other studies carried out in the primary care setting, and demonstrate the difficulties of obtaining clear and unequivocal quantitative evidence of the effectiveness of psychotherapeutic interventions in that environment. The range of conditions met with, some more and some less tractable than others, the immediacy of distress, the variability of 'routine GP-care', the practical difficulties of carrying through a randomisation protocol and of tracking sufficiently large numbers of participants for statistical purposes over an adequate period of time, and the problems involved in balancing the demands of internal and external validity, all add up to make a research challenge of considerable complexity for which no simple solution exists. In addition, the length of most primary care psychotherapeutic interventions is very limited as has been discussed, and perhaps, given that, the levels of effectiveness found are not that equivocal after all, especially when supported by the sort of qualitative approval often voiced by the clients of these services.

It has been suggested that the way forward for psychological therapy services in the NHS must be through better targeting of services via 'brokerage assessments', matching therapies, services and clients (see for example Glenys Parry, 1997). At present however funding and resource structures encourage generic primary care services that can offer treatment to most clients referred: this study demonstrates that such a service can be clinically effective and also illustrates many of the difficulties in attempting to measure that effectiveness.

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Appendices

Appendix 1: Participants Test Pack

Ref no. .....

.....Surgery & .....NHS Trust

We would be grateful if you would complete the attached questionnaires.These will help us with measuring changes in how you are feeling, and in evaluating the effectiveness of the psychology service. You will be asked to do them again later in treatment. They will only take about 10 to 15 minutes to do.

The completed questionnaires will be treated in strict confidence and will not be viewed by anyone apart from myself.

Alan M. Bellamy AFBPsS CPsychol
Senior Community Psychologist

First, please fill in the following:

I consent to the use of this data for the purposes explained above.

Your signature .....

Today's date.....

Your name (please print).....

Address.....

Tel. no.....

Your age..... Sex.....

Marital status.....

Now please complete the attached questionnaires, reading carefully the instructions first.

When finished hand the whole pack in to reception.Thank you.

Hospital Anxiety and Depression Scale

NFER NELSON

Name ..... Date .....

fold along dashed line

Clinicians are aware that emotions play an important part in most illnesses. If your clinician knows about these feelings she or he will be able to help you more.

This questionnaire is designed to help your clinician to know how you feel. Ignore the numbers printed on the left of the questionnaire. Read each item and **underline** the reply which comes closest to how you have been feeling in the past week.

Don't take too long over your replies; your immediate reaction to each item will probably be more accurate than a long thought-out response.

A

I feel tense or 'wound up':

3 Most of the time

2 A lot of the time

1 From time to time, occasionally

0 Not at all

D

I still enjoy the things I used to enjoy:

0 Definitely as much

1 Not quite so much

2 Only a little

3 Hardly at all

A

I get a sort of frightened feeling as if something awful is about to happen:

3 Very definitely and quite badly

2 Yes, but not too badly

1 A little, but it doesn't worry me

0 Not at all

(continued overleaf)

HOSPITAL ANXIETY AND DEPRESSION SCALE

fold along dashed line

D

I can laugh and see the funny side of things:

0 As much as I always could

1 Not quite so much now

2 Definitely not so much now

3 Not at all

A

Worrying thoughts go through my mind:

3 A great deal of the time

2 A lot of the time

1 From time to time but not too often

0 Only occasionally

D

I feel cheerful:

3 Not at all

2 Not often

1 Sometimes

0 Most of the time

A

I can sit at ease and feel relaxed:

0 Definitely

1 Usually

2 Not often

3 Not at all

D

I feel as if I am slowed down:

3 Nearly all the time

2 Very often

1 Sometimes

0 Not at all

A

I get a sort of frightened feeling like 'butterflies' in the stomach:

0 Not at all

1 Occasionally

2 Quite often

3 Very often

(continued overleaf)

HOSPITAL ANXIETY AND DEPRESSION SCALE

fold along dashed line

I have lost interest in my appearance:

Definitely

I don't take as much care as I should

I may not take quite as much care

I take just as much care as ever

I feel restless as if I have to be on the move:

Very much indeed

Quite a lot

Not very much

Not at all

I look forward with enjoyment to things:

As much as ever I did

Rather less than I used to

Definitely less than I used to

Hardly at all

I get sudden feelings of panic:

Very often indeed

Quite often

Not very often

Not at all

I can enjoy a good book or radio or TV programme:

Often

Sometimes

Not often

Very seldom

Now check that you have answered all the questions

For office use only:

D : ☐ Borderline 8–10

A : ☐ Borderline 8–10

SCL-90-R®

Symptom Checklist-90-R

Leonard R. Derogatis, PhD

Last Name First MI

ID Number

Age Gender Test Date

DIRECTIONS:

1. Print your name, identification number, age, gender, and testing date in the area on the left side of this page.
2. Use a lead pencil only and make a dark mark when responding to the items on pages 2 and 3.
3. If you want to change an answer, erase it carefully and then fill in your new choice.
4. Do not make any marks outside the circles.

DO NOT SEND TO NATIONAL COMPUTER SYSTEMS
USE ONLY FOR HAND SCORING

Product Numb
05618

TEXT BOUND INTO THE SPINE

STRUCTIONS:

ow is a list of problems people sometimes have. ase read each one carefully, and blacken the circle t best describes HOW MUCH THAT PROBLEM HAS STRESSED OR BOTHERED YOU DURING THE PAST 7 YS INCLUDING TODAY. Blacken the circle for only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully. Read the example before beginning, and if you have any questions please ask them now.

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	EXAMPLE HOW MUCH WERE YOU DISTRESSED BY:
1	0	1	2	●	4	Bodyaches

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	HOW MUCH WERE YOU DISTRESSED BY:
	0	1	2	3	4	Headaches
	0	1	2	3	4	Nervousness or shakiness inside
	0	1	2	3	4	Repeated unpleasant thoughts that won't leave your mind
	0	1	2	3	4	Faintness or dizziness
	0	1	2	3	4	Loss of sexual interest or pleasure
	0	1	2	3	4	Feeling critical of others
	0	1	2	3	4	The idea that someone else can control your thoughts
	0	1	2	3	4	Feeling others are to blame for most of your troubles
	0	1	2	3	4	Trouble remembering things
	0	1	2	3	4	Worried about sloppiness or carelessness
	0	1	2	3	4	Feeling easily annoyed or irritated
	0	1	2	3	4	Pains in heart or chest
	0	1	2	3	4	Feeling afraid in open spaces or on the streets
	0	1	2	3	4	Feeling low in energy or slowed down
	0	1	2	3	4	Thoughts of ending your life
	0	1	2	3	4	Hearing voices that other people do not hear
	0	1	2	3	4	Trembling
	0	1	2	3	4	Feeling that most people cannot be trusted
	0	1	2	3	4	Poor appetite
	0	1	2	3	4	Crying easily
	0	1	2	3	4	Feeling shy or uneasy with the opposite sex
	0	1	2	3	4	Feelings of being trapped or caught
	0	1	2	3	4	Suddenly scared for no reason
	0	1	2	3	4	Temper outbursts that you could not control
	0	1	2	3	4	Feeling afraid to go out of your house alone
	0	1	2	3	4	Blaming yourself for things
	0	1	2	3	4	Pains in lower back
	0	1	2	3	4	Feeling blocked in getting things done
	0	1	2	3	4	Feeling lonely
	0	1	2	3	4	Feeling blue
	0	1	2	3	4	Worrying too much about things
	0	1	2	3	4	Feeling no interest in things
	0	1	2	3	4	Feeling fearful
	0	1	2	3	4	Your feelings being easily hurt
	0	1	2	3	4	Other people being aware of your private thoughts
	0	1	2	3	4	Feeling others do not understand you or are unsympathetic
	0	1	2	3	4	Feeling that people are unfriendly or dislike you

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY	HOW MUCH WERE YOU DISTRESSED BY:
38	0	1	2	3	4	Having to do things very slowly to insure correctness
39	0	1	2	3	4	Heart pounding or racing
40	0	1	2	3	4	Nausea or upset stomach
41	0	1	2	3	4	Feeling inferior to others
42	0	1	2	3	4	Soreness of your muscles
43	0	1	2	3	4	Feeling that you are watched or talked about by others
44	0	1	2	3	4	Trouble falling asleep
45	0	1	2	3	4	Having to check and double-check what you do
46	0	1	2	3	4	Difficulty making decisions
47	0	1	2	3	4	Feeling afraid to travel on buses, subways, or trains
48	0	1	2	3	4	Trouble getting your breath
49	0	1	2	3	4	Hot or cold spells
50	0	1	2	3	4	Having to avoid certain things, places, or activities because they frighten you
51	0	1	2	3	4	Your mind going blank
52	0	1	2	3	4	Numbness or tingling in parts of your body
53	0	1	2	3	4	A lump in your throat
54	0	1	2	3	4	Feeling hopeless about the future
55	0	1	2	3	4	Trouble concentrating
56	0	1	2	3	4	Feeling weak in parts of your body
57	0	1	2	3	4	Feeling tense or keyed up
58	0	1	2	3	4	Heavy feelings in your arms or legs
59	0	1	2	3	4	Thoughts of death or dying
60	0	1	2	3	4	Overeating
61	0	1	2	3	4	Feeling uneasy when people are watching or talking about you
62	0	1	2	3	4	Having thoughts that are not your own
63	0	1	2	3	4	Having urges to beat, injure, or harm someone
64	0	1	2	3	4	Awakening in the early morning
65	0	1	2	3	4	Having to repeat the same actions such as touching, counting, or washing
66	0	1	2	3	4	Sleep that is restless or disturbed
67	0	1	2	3	4	Having urges to break or smash things
68	0	1	2	3	4	Having ideas or beliefs that others do not share
69	0	1	2	3	4	Feeling very self-conscious with others
70	0	1	2	3	4	Feeling uneasy in crowds, such as shopping or at a movie
71	0	1	2	3	4	Feeling everything is an effort
72	0	1	2	3	4	Spells of terror or panic
73	0	1	2	3	4	Feeling uncomfortable about eating or drinking in public
74	0	1	2	3	4	Getting into frequent arguments
75	0	1	2	3	4	Feeling nervous when you are left alone
76	0	1	2	3	4	Others not giving you proper credit for your achievements
77	0	1	2	3	4	Feeling lonely even when you are with people
78	0	1	2	3	4	Feeling so restless you couldn't sit still
79	0	1	2	3	4	Feelings of worthlessness
80	0	1	2	3	4	The feeling that something bad is going to happen to you
81	0	1	2	3	4	Shouting or throwing things
82	0	1	2	3	4	Feeling afraid you will faint in public
83	0	1	2	3	4	Feeling that people will take advantage of you if you let them
84	0	1	2	3	4	Having thoughts about sex that bother you a lot
85	0	1	2	3	4	The idea that you should be punished for your sins
86	0	1	2	3	4	Thoughts and images of a frightening nature
87	0	1	2	3	4	The idea that something serious is wrong with your body
88	0	1	2	3	4	Never feeling close to another person
89	0	1	2	3	4	Feelings of guilt
90	0	1	2	3	4	The idea that something is wrong with your mind

Appendix 2: GP Instructions and Entry Form

IS1	SCL IS 1 Format: F5	11
DEP1	SCL DEP1 Format: F5	12
ANX1	SCL ANX 1 Format: F5	13
HOS1	SCL HOS 1 Format: F5	14
PHOB1	SCL PHOB 1 Format: F5	15
PAR1	SCL PAR 1 Format: F5	16
PSY1	SCL PSY 1 Format: F5	17
PST1	SCL PST 1 Format: F5	18
PSDI1	SCL PSDI 1 Format: F5	19
A2	HAD ANX 2 Format: F5	20
D2	HAD DEP 2 Format: F5	21
GSI2	SCL GSI 2 Format: F5	22
SOM2	SCL SOM 2 Format: F5	23
OC2	SCL OC 2 Format: F5	24
IS2	SCL IS 2 Format: F5	25
DEP2	SCL DEP 2 Format: F5	26
ANX2	SCL ANX 2 Format: F5	27

HOS2	SCL HOS 2 Format: F5	28
PHOB2	SCL PHOB 2 Format: F5	29
PAR2	SCL PAR 2 Format: F5	30
PSY2	SCL PSY 2 Format: F5	31
PST2	SCL PST 2 Format: F5	32
PSDI2	SCL PSDI 2 Format: F5	33
A3	HAD ANX 3 Format: F5	34
D3	HAD DEP 3 Format: F5	35
GSI3	SCL GSI 3 Format: F5	36
SOM3	SCL SOM 3 Format: F5	37
OC3	SCL OC 3 Format: F5	38
IS3	SCL IS 3 Format: F5	39
DEP3	SCL DEP 3 Format: F5	40
ANX3	SCL ANX 3 Format: F5	41
HOS3	SCL HOS 3 Format: F5	42
PHOB3	SCL PHOB 3 Format: F5	43
PAR3	SCL PAR 3 Format: F5	44

Research protocol - Evaluation of Psychology Interventions

This is intended to be a controlled study of the clinical effectiveness of psychological intervention at the surgery.
The design of the study is a semi-random one. Please follow this protocol:

At initial consultation with GP

1] *Patient consults you with what you consider to be a wholly or partially psychological complaint, **such that you might consider referral to me.***

2] *You assign patient to one of two groups, using a randomisation process as follows:*

Group A - treatment by GP only - if the date is an odd number,
Group B - referral to myself - if it is even,

unless the patient or your judgement indicates otherwise, in which case do as you would do normally.
***Medication** may or may not be prescribed as you consider appropriate.*

3] *You then ask the patient if they will fill in a questionnaire as part of treatment and evaluation. Then **you give them the questionnaire pack** to complete in waiting area and leave at reception before departing, **and you fill in the project entry form.***
*If the patient declines to take part, please **still fill in an entry form but mark it** 'Declined' and of course don't give them the pack. This will give me some idea of numbers and characteristics of 'decliners'.*

4] *At the end of surgery please **put the entry forms in the psychology tray that I will place in the office.***
Let me know if you run out of packs or forms.

Follow - up

Group A:
I will contact the patients to fill in the questionnaires again after 8 weeks, and again after another 8 weeks.
Group B:
I will give Group B questionnaires again at first appointment with myself, and after 8 weeks, and again after another 8 weeks.

Analysis

Outcome data will be analysed according to the following variables and interactions:

GP care only, GP care and psychologist waiting list, GP and psychologist care, presenting problem or diagnosis.

Alan Bellamy Nov 1996

Ref no. .....

Psychology Research Project Entry Form

for patients presenting with psychological problems.

Please complete this after initial consultation and having asked your patient to complete the questionnaire pack in the waiting room.

Place this form in the psychology tray in the office. Thank you.

Patient's name.....

Address.....

DoB.....

Problem or diagnosis (brief description).....

.....

Treatment decision: (tick)

GP care only..... or Psychology referral.....

Random decision..... or Non-random.....

Relevent medication prescribed: (tick)

No..... Yes.....

Please specify if yes.....

GP name.....Date.....

Appendix 3: Coding Values for Variables in Raw Data Tables and Analyses

Variable Information:

Name		Position
REF	Reference Number Format: F5	1
GRP	Control or Treatment Group Format: F5 Value Label 1 Control 2 Treatment	2
DIAG	Referral Diagnosis Format: F5 Value Label 1 Anxiety 2 Depression 3 Anxiety and Depression 4 OCD 5 CSA 6 Relationship 7 Other 8 Eating Disorder	3
AGE	Age in Years Format: F5	4
SEX	Sex Format: F5 Value Label 1 Female 2 Male	5
A1	HAD ANX #1 Format: F5	6
D1	HAD DEP #1 Format: F5	7
GSI1	SCL GSI 1 Format: F5	8
SOM1	SCL SOM 1 Format: F5	9
OC1	SCL OC 1 Format: F5	10

PSY3	SCL PSY 3 Format: F5	45
PST3	SCL PST 3 Format: F5	46
PSDI3	SCL PSDI 3 Format: F5	47
A4	HAD ANX 4 Format: F5	48
D4	HAD DEP 4 Format: F5	49
GSI4	SCL GSI 4 Format: F5	50
SOM4	SCL SOM 4 Format: F5	51
OC4	SCL OC 4 Format: F5	52
IS4	SCL IS 4 Format: F5	53
DEP4	SCL DEP 4 Format: F5	54
ANX4	SCL ANX 4 Format: F5	55
HOS4	SCL HOS 4 Format: F5	56
PHOB4	SCL PHOB 4 Format: F5	57
PAR4	SCL PAR 4 Format: F5	58
PSY4	SCL PSY 4 Format: F5	59
PST4	SCL PST 4 Format: F5	60
PSDI4	SCL PSDI 4 Format: F5	61

Appendix 4: Raw Data Tables

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	A1	A2	A3	A4	D1	D2	D3	D4	GSI1	GSI2	GSI3	GSI4	SOM1	SOM2	SOM3
2	1	5	33	1	11	11	9	7	8	15	12	6	68	76	59	59	66	80	69
70	1	2	38	1		12	12	13		14	17	15		75	80	80		80	80
68	1	1	26	1		18	17	14		12	16	13		77	80	76		62	64
8	1	1	52	1		12	3	7		8	4	8		69	56	63		66	55
58	1	2	23	1		7	9	7		6	7	6		59	61	56		61	60
18	1	6	42	2		18	19	18		11	12	12		80	80	80		80	80
22	1	1	36	2		13	7	12		12	5	7		69	59	68		67	53
10	1	3	31	2	18	19	14		8	7	7		80	80	80		79	79	80
102	1	2	43	2	10	13	12	10	7	12	12	8	74	78	76	76	57	57	56
105	1	1	57	1		17	15	15		10	9	9		64	64	62		61	61
106	1	1	33	1		13	12	10		4	6	6		79	79	79		71	73
107	1	1	42	1	3	5	3	3	9	9	7	7	63	65	63	62	60	58	58
5	1	7	29	1	17	10	10	13	12	6	8	10	78	70	69	71	57	66	63
111	1	2	31	2		20	19	16		18	17	15		80	80	80		80	80
113	1	1	40	1	17	14	12	11	7	6	6	6	69	64	63	63	66	66	66
120	1	2	32	2	16	13	14	15	15	14	12	14	71	80	74	80	59	59	65
46	2	2	16	1		13	10	9		7	2	0		72	62	59		65	51
47	2	1	37	1		16				15				80				65	
49	2	4	47	1		17	16	13		9	10	8		72	72	68		61	58
23	2	2	37	1	17	20			12	14			80	80			80	80	
50	2	2	26	2		10	12	13		20	16	12		72	80	80		49	60
1	2	6	36	1	16	15	10	7	10	10	7	5	64	66	58	54	46	49	41
52	2	2	63	2		13	8	9		10	7	11		80	63	67		62	59
31	2	2	41	1	19	20			20	20			80	80			80	80	
24	2	2	43	1		11	5	8		11	5	6		67	52	64		54	46
55	2	3	24	1		17				11				80				80	
25	2	1	49	1		3				0				56				60	
4	2	3	24	1	11				8				68				61		
26	2	1	32	1	14	19	9	7	8	7	6	6	76	72	60	59	80	78	64
7	2	1	29	1		12	9	6		8	5	5		72	59	54		61	51
66	2	2	57	1		10	7	3		7	7	1		67	64	53		58	49
65	2	3	30	1		19	15	8		9	9	5		80	79	60		80	71
6	2	6	36	1	11	12	13	9	9	8	8	8	72	69	69	69	69	66	79
101	2	5	36	1		20	17	15		14	14	9		80	80	79		80	80
103	2	1	47	1		17	10	9		12	6	5		70	60	61		57	47
104	2	2	55	1		15	8	4		7	1	1		80	65	63		75	62
108	2	1	49	1		15	8	5		16	5	5		72	61	59		61	55

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	SOM4	OC1	OC2	OC3	OC4	IS1	IS2	IS3	IS4	DEP1	DEP2	DEP3	DEP4	ANX1	ANX2
2	1	5	33	1	68	62	72	65	66	72	79	71	69	66	69	56	53	70	76
70	1	2	38	1	80		72	71	72		72	71	69		75	80	78		73
68	1	1	26	1	62		75	80	78		72	71	71		74	80	78		67
8	1	1	52	1	58		76	66	75		64	59	61		69	56	69		66
58	1	2	23	1	59		52	54	52		54	59	56		58	61	56		61
18	1	6	42	2	80		80	80	80		80	79	79		80	80	80		80
22	1	1	36	2	56		56	51	54		63	50	56		67	63	63		80
10	1	3	31	2		80	80	80		80	80	78		80	80	80		80	80
102	1	2	43	2	56	66	63	63	64	74	76	76	74	80	80	80	80	74	80
105	1	1	57	1	62		57	56	57		52	53	51		61	60	58		77
106	1	1	33	1	72		68	66	67		80	80	80		71	73	73		76
107	1	1	42	1	56	74	76	76	73	63	63	63	65	68	72	67	68	55	56
5	1	7	29	1	63	70	67	64	67	80	76	80	79	80	69	69	78	79	71
111	1	2	31	2	80		80	80	78		80	80	76		80	80	79		80
113	1	1	40	1	66	66	64	64	65	53	53	53	53	63	63	62	61	80	76
120	1	2	32	2	68	71	72	72	64	56	58	56	67	77	80	80	80	74	80
46	2	2	16	1	53		65	50	37		66	62	59		70	57	50		73
47	2	1	37	1			80				80				76				79
49	2	4	47	1	56		80	80	76		79	79	78		71	69	64		74
23	2	2	37	1		73	80			80	80			80	80			79	80
50	2	2	26	2	64		73	80	80		71	80	80		74	80	80		73
1	2	6	36	1	41	58	62	53	51	62	67	60	56	69	69	60	54	70	72
52	2	2	63	2	62		80	69	74		69	56	50		80	70	67		71
31	2	2	41	1		80	80			80	80			80	80			80	80
24	2	2	43	1	57		64	50	57		67	50	63		72	61	67		63
55	2	3	24	1			79				74				80				79
25	2	1	49	1			50				46				54				59
4	2	3	24	1		61				80				69				67	
26	2	1	32	1	64	68	66	54	54	67	53	52	50	71	67	58	56	80	80
7	2	1	29	1	51		66	56	56		72	62	58		69	56	54		79
66	2	2	57	1	41		74	71	62		62	62	50		68	67	58		52
65	2	3	30	1	63		78	80	65		80	79	56		50	71	47		80
6	2	6	36	1	80	66	70	66	67	71	71	69	63	70	69	66	66	72	72
101	2	5	36	1	80		80	80	78		80	80	79		80	78	74		80
103	2	1	47	1	49		68	55	57		69	61	60		74	62	62		72
104	2	2	55	1	55		80	71	66		79	64	62		80	66	64		73
108	2	1	49	1	55		80	62	61		80	53	53		69	56	55		59

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	ANX3	ANX4	HOS1	HOS2	HOS3	HOS4	PHOB1	PHOB2	PHOB3	PHOB4	PAR1	PAR2	PAR3	PAR4	PSY1
2	1	5	33	1	61	62	68	53	51	51	70	76	73	69	72	72	56	56	65
70	1	2	38	1	79	72		74	70	69		67	75	73		66	73	76	
68	1	1	26	1	65	64		80	80	80		58	55	53		73	76	74	
8	1	1	52	1	37	59		60	40	51		61	43	51		56	41	49	
58	1	2	23	1	65	59		66	68	61		44	44	42		61	62	57	
18	1	6	42	2	80	80		80	78	79		80	79	79		80	76	76	
22	1	1	36	2	68	79		49	55	51		74	63	66		49	53	53	
10	1	3	31	2	80		80	80	80		80	80	80		78	62	67		77
102	1	2	43	2	80	80	58	58	56	56	73	76	76	73	74	74	74	73	69
105	1	1	57	1	74	73		57	56	56		63	65	64		41	41	42	
106	1	1	33	1	76	74		80	80	79		71	70	71		73	76	76	
107	1	1	42	1	55	54	48	47	47	49	55	55	53	55	49	44	43	43	61
5	1	7	29	1	63	71	69	48	47	56	67	70	73	70	77	67	66	67	80
111	1	2	31	2	80	76		80	80	76		80	80	75		80	80	77	
113	1	1	40	1	74	70	48	49	49	49	76	71	70	70	55	56	54	55	59
120	1	2	32	2	76	80	63	74	62	59	47	67	46	67	42	62	41	65	63
46	2	2	16	1	65	67		80	48	66		76	67	63		67	62	57	
47	2	1	37	1				74				70				79			
49	2	4	47	1	76	73		54	68	66		73	70	67		62	67	67	
23	2	2	37	1			73	80			71	80			72	80			73
50	2	2	26	2	76	80		79	80	80		61	73	79		67	78	79	
1	2	6	36	1	55	55	57	60	60	58	43	44	54	52	70	69	63	58	53
52	2	2	63	2	56	65		71	64	68		59	47	47		65	59	53	
31	2	2	41	1			80	80			80	80			80	80			80
24	2	2	43	1	44	57		71	53	73		0	43	44		57	54	63	
55	2	3	24	1				79				66				73			
25	2	1	49	1				38				67				49			
4	2	3	24	1			63				45				73				68
26	2	1	32	1	68	65	57	63	56	56	73	70	61	60	49	41	42	43	69
7	2	1	29	1	59	57		69	54	52		71	61	58		67	58	58	
66	2	2	57	1	52	45		63	47	48		45	44	45		54	54	42	
65	2	3	30	1	72	44		80	71	57		80	73	57		80	68	54	
6	2	6	36	1	67	66	54	67	57	61	66	63	65	65	71	69	61	63	73
101	2	5	36	1	80	80		73	72	70		80	76	76		69	69	69	
103	2	1	47	1	53	54		68	46	45		44	45	45		73	54	57	
104	2	2	55	1	55	57		72	57	54		63	43	43		80	66	67	
108	2	1	49	1	61	59		40	48	46		80	67	62		73	66	62	

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	PSY2	PSY3	PSY4	PST1	PST2	PST3	PST4	PSDI1	PSDI2	PSDI3	PSDI4
2	1	5	33	1	72	53	54	67	74	62	63	64	69	57	57
70	1	2	38	1	66	73	71		73	71	74		68	80	80
68	1	1	26	1	80	78	74		69	67	65		77	79	75
8	1	1	52	1	60	53	57		66	53	59		66	61	64
58	1	2	23	1	60	63	56		64	65	62		49	50	49
18	1	6	42	2	80	76	78		80	80	80		79	79	79
22	1	1	36	2	64	60	62		69	61	65		58	49	56
10	1	3	31	2	80	76		80	80	80		71	69	67	
102	1	2	43	2	66	63	63	71	74	74	73	64	66	64	64
105	1	1	57	1	53	53	53		57	55	55		69	69	68
106	1	1	33	1	74	72	72		72	72	73		69	69	70
107	1	1	42	1	61	60	60	60	60	60	59	64	66	63	63
5	1	7	29	1	72	67	74	70	69	68	69	75	65	65	68
111	1	2	31	2	76	80	79		80	80	78		80	80	79
113	1	1	40	1	59	59	61	65	63	62	62	67	63	63	63
120	1	2	32	2	80	71	80	63	71	67	76	67	70	67	65
46	2	2	16	1	71	64	45		68	61	57		71	56	54
47	2	1	37	1	80				73				73		
49	2	4	47	1	67	66	64		67	67	65		69	72	65
23	2	2	37	1	80			78	80			73	80		
50	2	2	26	2	68	73	75		69	78	80		68	68	67
1	2	6	36	1	64	60	53	60	67	60	57	68	62	47	45
52	2	2	63	2	79	53	67		72	64	63		67	54	64
31	2	2	41	1	80			80	80			80	80		
24	2	2	43	1	60	58	59		62	53	59		68	50	67
55	2	3	24	1	75				75				78		
25	2	1	49	1	58				57				53		
4	2	3	24	1				65				67			
26	2	1	32	1	70	59	58	71	69	58	58	71	69	61	60
7	2	1	29	1	66	58	57		79	62	59		58	45	46
66	2	2	57	1	66	67	48		60	59	52		72	66	53
65	2	3	30	1	80	79	58		78	77	59		76	68	54
6	2	6	36	1	67	66	63	72	73	71	72	66	61	60	59
101	2	5	36	1	80	79	77		75	74	74		80	79	79
103	2	1	47	1	72	66	66		72	62	63		63	45	46
104	2	2	55	1	80	64	67		74	61	65		79	64	53
108	2	1	49	1	66	61	61		64	60	59		80	58	56

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	A1	A2	A3	A4	D1	D2	D3	D4	GSI1	GSI2	GSI3	GSI4	SOM1	SOM2	SOM3
110	2	3	22	1	16	14	7	7	15	14	7	6	80	79	61	60	79	71	62
112	2	1	35	1	9	8	6	7	6	11	7	7	66	65	59	61	61	55	52
114	2	1	46	1		8	5	5		6	5	4		65	61	59		61	61
115	2	2	32	1	21	21	15	12	14	13	11	7	76	76	70	64	51	45	57
116	2	3	59	1		16	7	4		7	5	4		62	52	50		46	49
118	2	2	35	1	14	17	16		11	9	9		80	80	80		80	80	70
119	2	2	55	2	12	11	8	7	10	9	7	6	76	75	69	65	76	69	67
121	2	6	37	1	17	15	10	12	14	13	7	4	80	80	74	73	80	80	79
122	2	3	66	1	12				7				68				65		
123	2	1	32	1		12	7	8		16	9	9		80	71	72		72	65
124	2	8	18	1		15	9	7		4	3	3		72	66	67		55	41
125	2	3	37	1		12	8	11		11	7	9		76	67	73		62	62
126	2	7	19	1	13	9	7		3	2	2		61	52	51		49	35	36
127	2	7	49	2	5	2	2	2	11	5	3	3	60	52	49	48	53	43	43
128	2	1	16	1	13	16	11		10	8	3		73	72	67		65	58	45
129	2	1	56	1	21	18	9	6	14	12	2	3	80	80	70	66	80	80	65
130	2	2	48	1	14	16	14		16	20	14		78	72	72		66	66	67
131	2	3	23	1	12	15	12		17	19	15		72	72	71		49	41	42
132	2	2	48	2		14	8	6		16	7	5		78	65	59		65	62
133	2	2	37	1		14				15				65				58	
134	2	1	29	2		13				5				72				71	
135	2	1	34	1	17	18		14	8	7		7	72	79		79	70	80	
136	2	1	47	2	10	10	7	9	12	12	14	14	75	74	72	74	66	68	60
137	2	2	35	1	9	8	5	6	17	16	14	15	67	66	64	63	68	65	65
138	2	3	35	2	14				12				80				76		
139	2	2	33	1	14	13	9		12	11	9		71	80	65		66	65	62
140	2	2	55	1		9	6	5		8	6	6		62	47	47		49	49
141	2	3	40	1	18	18		13	9	11		7	80	80		79	80	80	
142	2	3	34	2	17	14	17	16	11	9	13	12	80	80	80	80	76	80	79
143	2	1	37	1		15	8	7		7	5	5		72	63	63		65	65
144	2	2	40	1		14	11			17	14			79	69			79	68
145	2	1	29	2		10	8	14		7	6	6		80	80	74		80	66
146	2	2	40	1		5	3	3		11	4	4		68	57	56		63	58

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	SOM4	OC1	OC2	OC3	OC4	IS1	IS2	IS3	IS4	DEP1	DEP2	DEP3	DEP4	ANX1	ANX2
110	2	3	22	1	62	67	62	59	58	80	76	68	66	80	70	62	62	80	77
112	2	1	35	1	52	61	62	61	62	60	53	54	55	70	71	63	62	59	66
114	2	1	46	1	59		66	62	62		64	62	60		67	63	61		55
115	2	2	32	1	55	76	80	76	69	80	74	71	70	71	74	69	65	73	76
116	2	3	59	1	49		54	44	43		62	50	50		68	57	54		63
118	2	2	35	1		75	79	79		76	80	80		80	75	80		73	79
119	2	2	55	2	67	60	66	60	58	69	71	65	64	80	80	71	70	76	69
121	2	6	37	1	80	80	80	72	75	80	80	72	72	75	76	69	68	79	76
122	2	3	66	1		53				71				55				74	
123	2	1	32	1	64		80	75	76		80	72	73		75	73	73		79
124	2	8	18	1	62		72	60	66		74	72	72		71	69	68		79
125	2	3	37	1	58		71	68	72		68	65	71		71	66	70		80
126	2	7	19	1		55	49	49		69	60	58		57	50	49		66	55
127	2	7	49	2	42	51	46	46	46	58	56	54	53	64	53	49	49	40	54
128	2	1	16	1		70	67	65		80	80	79		76	71	65		71	77
129	2	1	56	1	64	80	80	68	67	80	80	72	69	80	80	67	65	80	80
130	2	2	48	1		75	75	74		80	71	79		76	80	75		71	71
131	2	3	23	1		72	65	71		72	72	69		80	80	79		67	67
132	2	2	48	2	60		74	64	62		56	57	54		80	71	64		76
133	2	2	37	1			66				67				70				59
134	2	1	29	2			64				62				63				80
135	2	1	34	1	80	66	71		70	72	80		79	69	75		72	73	79
136	2	1	47	2	60	80	76	72	74	64	67	70	70	80	80	72	78	79	79
137	2	2	35	1	65	65	65	66	62	63	62	64	58	70	70	68	66	52	43
138	2	3	35	2		80				80				80				80	
139	2	2	33	1		72	75	61		71	80	60		69	75	60		72	76
140	2	2	55	1	49		71	54	53		59	39	40		63	48	48		52
141	2	3	40	1	80	74	80		71	80	80		72	80	80		70	80	80
142	2	3	34	2	79	80	80	80	80	80	80	80	80	80	80	80	80	80	80
143	2	1	37	1	64		66	62	62		80	76	76		70	64	64		68
144	2	2	40	1			73	72			77	71			80	74			72
145	2	1	29	2	68		80	63	71		74	71	67		80	69	71		80
146	2	2	40	1	58		66	54	56		69	53	52		72	60	59		55

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	ANX3	ANX4	HOS1	HOS2	HOS3	HOS4	PHOB1	PHOB2	PHOB3	PHOB4	PAR1	PAR2	PAR3	PAR4	PSY1
110	2	3	22	1	61	62	77	77	59	59	80	80	64	62	72	65	58	59	80
112	2	1	35	1	60	61	80	74	69	70	44	44	44	45	60	63	60	60	58
114	2	1	46	1	53	54		61	60	60		58	54	54		63	59	59	
115	2	2	32	1	68	63	70	71	68	66	74	70	66	65	79	77	69	65	69
116	2	3	59	1	44	46		48	48	48		43	44	44		40	49	46	
118	2	2	35	1	79		71	73	72		70	74	68		77	79	76		80
119	2	2	55	2	69	66	75	77	69	65	75	72	70	66	53	65	64	58	63
121	2	6	37	1	68	70	74	72	68	63	80	80	68	67	80	80	80	80	80
122	2	3	66	1			51				74				53				70
123	2	1	32	1	69	71		80	71	69		61	61	62		80	69	69	
124	2	8	18	1	67	61		68	63	70		67	63	58		64	67	62	
125	2	3	37	1	71	76		69	68	63		80	76	69		71	68	80	
126	2	7	19	1	53		60	47	47		67	66	60		61	55	53		61
127	2	7	49	2	51	49	41	54	52	52	47	62	61	62	56	53	53	53	61
128	2	1	16	1	72		69	57	54		67	71	69		67	70	62		59
129	2	1	56	1	67	62	63	62	47	47	77	78	70	66	74	73	67	67	80
130	2	2	48	1	67		63	60	55		66	56	57		71	67	66		80
131	2	3	23	1	66		72	71	71		66	66	64		69	72	72		67
132	2	2	48	2	62	59		53	49	47		69	63	60		40	40	40	
133	2	2	37	1				57				54				44			
134	2	1	29	2				55				72				49			
135	2	1	34	1		76	68	73		72	67	67		66	68	77		77	66
136	2	1	47	2	60	69	62	49	61	61	59	48	63	63	49	57	56	57	79
137	2	2	35	1	52	44	74	72	71	69	54	57	45	53	57	63	57	57	63
138	2	3	35	2			80				74				73				80
139	2	2	33	1	63		72	79	71		70	80	69		54	72	54		62
140	2	2	55	1	37	38		47	47	46		43	43	43		40	41	42	
141	2	3	40	1		72	80	80		71	80	80		73	77	80		76	80
142	2	3	34	2	80	80	72	64	72	69	80	80	80	80	70	73	75	76	73
143	2	1	37	1	63	63		63	56	57		45	45	46		70	62	62	
144	2	2	40	1	63			70	57			43	44			68	63		
145	2	1	29	2	69	79		80	80	56		79	80	70		68	74	65	
146	2	2	40	1	45	45		66	46	47		53	44	46		62	57	55	

PARTICIPANT REFERENCE NUMBER	GRP	DIAG	AGE	SEX	PSY2	PSY3	PSY4	PST1	PST2	PST3	PST4	PSDI1	PSDI2	PSDI3	PSDI4
110	2	3	22	1	74	61	60	75	71	59	59	79	73	60	60
112	2	1	35	1	61	58	59	63	63	59	60	65	66	61	61
114	2	1	46	1	69	62	60		65	62	60		60	60	59
115	2	2	32	1	75	66	61	73	70	69	63	69	73	67	63
116	2	3	59	1	67	65	60		63	53	51		54	50	50
118	2	2	35	1	80	80		71	70	79		78	72	72	
119	2	2	55	2	65	65	61	69	72	68	66	68	65	64	64
121	2	6	37	1	80	73	75	79	78	76	74	79	76	64	69
122	2	3	66	1				62				67			
123	2	1	32	1	80	71	71		76	71	72		73	69	70
124	2	8	18	1	79	69	65		72	65	69		67	63	58
125	2	3	37	1	80	73	78		69	66	68		74	67	73
126	2	7	19	1	54	54		59	53	51		58	48	48	
127	2	7	49	2	53	52	52	51	53	51	51	72	47	47	46
128	2	1	16	1	67	60		69	68	66		69	70	61	
129	2	1	56	1	80	74	69	76	76	73	67	80	80	62	61
130	2	2	48	1	70	67		71	65	66		73	73	73	
131	2	3	23	1	65	67		67	68	67		73	69	70	
132	2	2	48	2	61	61	57		66	63	56		80	61	57
133	2	2	37	1	58				65				60		
134	2	1	29	2	61				66				64		
135	2	1	34	1	74		75	72	75		74	66	72		72
136	2	1	47	2	69	69	70	70	72	69	70	66	62	61	63
137	2	2	35	1	60	59	53	64	63	63	60	67	66	61	60
138	2	3	35	2				78				74			
139	2	2	33	1	74	64		71	76	67		66	73	53	
140	2	2	55	1	42	43	43		58	47	47		62	45	46
141	2	3	40	1	80		80	77	80		79	78	80		68
142	2	3	34	2	75	75	74	80	80	80	80	72	72	72	72
143	2	1	37	1	74	64	63		69	65	65		68	63	63
144	2	2	40	1	80	64			72	65			73	70	
145	2	1	29	2	80	76	69		78	72	72		72	67	62
146	2	2	40	1	67	58	56		64	57	57		68	48	48

Numbers of cases out of totals	A1	A2	A3	A4	D1	D2	D3	D4	GSI1	GSI2	GSI3	GSI4
Group 1:Control:cases[total]	6[7	14[16	14[16	11[15	5[7	12[16	8[16	9[15	7[7	15[16	12[16	11[15
Group 2:Treatment:cases[total]	25[26	47[50	28[42	18[37	23[26	36[50	15[42	10[37	25[26	45[50	27[42	21[37

Appendix 5: SPSS Output: t-tests for paired samples

09 Mar 98 SPSS for MS WINDOWS Release 6.67

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
A2				13.2143	3.997	.617
	42	.731	.000			
A3				9.3333	3.654	.564

Paired Differences						
Mean	SD	SE of Mean		t-value	df	2-tail Sig
3.8810	2.822	.435		8.91	41	.000
95% CI (3.001, 4.760)						

09 Mar 98 SPSS for MS WINDOWS Release 6.68

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
A2				13.2703	4.247	.698
	37	.451	.005			
A4				8.2703	3.618	.595

Paired Differences						
Mean	SD	SE of Mean	t-value	df	2-tail Sig	
5.0000	4.157	.683	7.32	36	.000	
95% CI (3.614, 6.386)						

09 Mar 98 SPSS for MS WINDOWS Release 6.69

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
A2				13.2703	4.247	.698
	37	.451	.005			
A4				8.2703	3.618	.595

Mean	Paired Differences SD	SE of Mean	t-value	df	2-tail Sig
5.0000	4.157	.683	7.32	36	.000
95% CI (3.614, 6.386)					

09 Mar 98 SPSS for MS WINDOWS Release 6.70

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
A2				13.2703	4.247	.698
	37	.451	.005			
A4				8.2703	3.618	.595

Paired Differences						
Mean	SD	SE of Mean		t-value	df	2-tail Sig
5.0000	4.157	.683		7.32	36	.000
95% CI (3.614, 6.386)						

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
D2				10.6667	4.269	.659
	42	.701	.000			
D3				7.4286	3.877	.598

Paired Differences						
Mean	SD	SE of Mean	t-value	df	2-tail Sig	
3.2381	3.169	.489	6.62	41	.000	
95% CI (2.250, 4.226)						

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
D2	37	.504	.001	10.2703	3.626	.596
D4				6.2973	3.390	.557

Paired Differences						
Mean	SD	SE of Mean	t-value	df	2-tail Sig	
3.9730	3.500	.575	6.90	36	.000	
95% CI (2.806, 5.140)						

09 Mar 98 SPSS for MS WINDOWS Release 6.71

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
A2				13.2143	3.997	.617
	42	.731	.000			
A3				9.3333	3.654	.564

Paired Differences						
Mean	SD	SE of Mean		t-value	df	2-tail Sig
3.8810	2.822	.435		8.91	41	.000
95% CI (3.001, 4.760)						

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
GSI2				72.3810	7.201	1.111
	42	.740	.000			
GSI3				65.6190	8.734	1.348

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
6.7619	5.921	.914	7.40	41	.000
95% CI (4.916, 8.608)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
GSI2				72.7568	6.763	1.112
	37	.682	.000			
GSI4				64.3514	9.093	1.495

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
8.4054	6.673	1.097	7.66	36	.000
95% CI (6.180, 10.631)					

09 Mar 98 SPSS for MS WINDOWS Release 6.72

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
HOS2				66.0476	10.441	1.611
	42	.607	.000			
HOS3				60.2857	10.083	1.556

Paired Differences					
Mean	SD	SE of Mean	t-value	df	2-tail Sig
5.7619	9.109	1.405	4.10	41	.000
95% CI (2.923, 8.601)					

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
HOS2				66.7568	10.484	1.724
	37	.580	.000			
HOS4				60.1892	9.463	1.556

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
6.5676	9.188	1.510	4.35	36	.000
95% CI (3.503, 9.632)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
IS2				70.7143	8.344	1.288
	42	.696	.000			
IS3				65.5238	10.225	1.578

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
5.1905	7.445	1.149	4.52	41	.000
95% CI (2.870, 7.511)					

09 Mar 98 SPSS for MS WINDOWS Release 6.73

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
IS2	37	.685	.000	70.5405	8.517	1.400
IS4				63.2432	10.412	1.712

Paired Differences						
Mean	SD	SE of Mean		t-value	df	2-tail Sig
7.2973	7.713	1.268		5.75	36	.000
95% CI (4.725, 9.870)						

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
OC2	42	.783	.000	70.6190	8.633	1.332
OC3				64.6190	10.186	1.572

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
6.0000	6.371	.983	6.10	41	.000
95% CI (4.014, 7.986)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
OC2				71.1892	8.343	1.372
	37	.768	.000			
OC4				63.6757	10.244	1.684

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
7.5135	6.581	1.082	6.94	36	.000
95% CI (5.319, 9.708)					

09 Mar 98 SPSS for MS WINDOWS Release 6.74

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PAR2				65.3095	10.744	1.658
	42	.816	.000			
PAR3				61.7143	9.353	1.443

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
3.5952	6.235	.962	3.74	41	.001
95% CI (1.652, 5.539)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PAR2				65.3243	11.390	1.872
	37	.763	.000			
PAR4				61.0000	10.614	1.745

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
4.3243	7.609	1.251	3.46	36	.001
95% CI (1.787, 6.862)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PHOB2				62.7143	16.317	2.518
	42	.796	.000			
PHOB3				60.0952	11.618	1.793

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
2.6190	9.980	1.540	1.70	41	.097
95% CI (-.492, 5.730)					

09 Mar 98 SPSS for MS WINDOWS Release 6.75

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
PHOB2				62.8378	16.901	2.778
	37	.715	.000			
PHOB4				59.0000	10.687	1.757

Paired Differences						
Mean	SD	SE of Mean		t-value	df	2-tail Sig
3.8378	11.894	1.955		1.96	36	.057
95% CI (-.129, 7.804)						

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
PSDI2				68.5476	7.778	1.200
	42	.621	.000			
PSDI3				60.7619	8.851	1.366

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
7.7857	7.304	1.127	6.91	41	.000
95% CI (5.509, 10.062)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PSDI2				69.0000	7.674	1.262
	37	.506	.001			
PSDI4				59.8108	8.666	1.425

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
9.1892	8.168	1.343	6.84	36	.000
95% CI (6.465, 11.913)					

09 Mar 98 SPSS for MS WINDOWS Release 6.76

- - - t-tests for paired samples - - -

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PST2				69.0238	6.479	1.000
	42	.760	.000			
PST3				64.6667	7.833	1.209

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
4.3571	5.122	.790	5.51	41	.000
95% CI (2.761, 5.954)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PST2				69.7838	6.503	1.069
	37	.742	.000			
PST4				63.8378	8.358	1.374

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
5.9459	5.612	.923	6.44	36	.000
95% CI (4.074, 7.818)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
PSY2				69.9286	8.752	1.351
	42	.751	.000			
PSY3				64.8333	7.796	1.203

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
5.0952	5.909	.912	5.59	41	.000
95% CI (3.253, 6.937)					

09 Mar 98 SPSS for MS WINDOWS Release 6.77

- - - t-tests for paired samples - - -

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
PSY2				70.2973	8.736	1.436
	37	.707	.000			
PSY4				62.9459	9.138	1.502

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
7.3514	6.852	1.127	6.53	36	.000
95% CI (5.066, 9.637)					

Variable	Number of pairs	2-tail Corr	Sig	Mean	SD	SE of Mean
SOM2				63.1905	12.170	1.878
	42	.824	.000			
SOM3				58.8095	11.167	1.723

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
4.3810	6.991	1.079	4.06	41	.000
95% CI (2.202, 6.560)					

Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
SOM2				64.5946	11.434	1.880
	37	.740	.000			
SOM4				60.7568	10.917	1.795

Paired Differences

Mean	SD	SE of Mean	t-value	df	2-tail Sig
3.8378	8.071	1.327	2.89	36	.006
95% CI (1.146, 6.529)					

Appendix 6: SPSS Output: t-tests for independent samples by group

09 Mar 98 SPSS for MS WINDOWS Release 6.79

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
A3				
GRP 1	16	11.6875	4.813	1.203
GRP 2	42	9.3333	3.654	.564

Mean Difference = 2.3542

Levene's Test for Equality of Variances: F= 1.206 P= .277

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.00	56	.050	1.174	(.001, 4.707)
Unequal	1.77	21.92	.090	1.329	(-.402, 5.110)

Variable	Number of Cases	Mean	SD	SE of Mean
A4				
GRP 1	15	11.4000	4.102	1.059
GRP 2	37	8.2703	3.618	.595

Mean Difference = 3.1297

Levene's Test for Equality of Variances: F= .357 P= .553

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.72	50	.009	1.151	(.817, 5.442)
Unequal	2.58	23.32	.017	1.215	(.616, 5.643)

09 Mar 98 SPSS for MS WINDOWS Release 6.80

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
D3				
GRP 1	16	9.8125	4.277	1.069
GRP 2	42	7.4286	3.877	.598

Mean Difference = 2.3839

Levene's Test for Equality of Variances: F= .904 P= .346

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.03	56	.047	1.172	(.036, 4.732)
Unequal	1.95	24.96	.063	1.225	(-.140, 4.908)

Variable	Number of Cases	Mean	SD	SE of Mean
D4				
GRP 1	15	9.4667	3.441	.888
GRP 2	37	6.2973	3.390	.557

Mean Difference = 3.1694

Levene's Test for Equality of Variances: F= .464 P= .499

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	3.04	50	.004	1.042	(1.076, 5.263)
Unequal	3.02	25.64	.006	1.049	(1.013, 5.326)

09 Mar 98 SPSS for MS WINDOWS Release 6.81

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
DEP3				
GRP 1	16	70.4375	9.668	2.417
GRP 2	42	65.9286	8.247	1.273

Mean Difference = 4.5089

Levene's Test for Equality of Variances: F= 2.557 P= .115

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.77	56	.081	2.541	(-.583, 9.601)
Unequal	1.65	23.80	.112	2.731	(-1.130, 10.148)

Variable	Number of Cases	Mean	SD	SE of Mean
DEP4				
GRP 1	15	70.2667	9.801	2.531
GRP 2	37	63.7027	8.595	1.413

Mean Difference = 6.5640

Levene's Test for Equality of Variances: F= 1.369 P= .248

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.40	50	.020	2.739	(1.060, 12.067)
Unequal	2.26	23.21	.033	2.898	(.567, 12.561)

09 Mar 98 SPSS for MS WINDOWS Release 6.82

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
GSI3				
GRP 1	16	70.1875	9.261	2.315
GRP 2	42	65.6190	8.734	1.348

Mean Difference = 4.5685

Levene's Test for Equality of Variances: F= 1.168 P= .285

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.75	56	.085	2.608	(-.658, 9.795)
Unequal	1.71	25.80	.100	2.679	(-.939, 10.076)

Variable	Number of Cases	Mean	SD	SE of Mean
GSI4				
GRP 1	15	70.3333	8.861	2.288
GRP 2	37	64.3514	9.093	1.495

Mean Difference = 5.9820

Levene's Test for Equality of Variances: F= .163 P= .689

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.16	50	.035	2.764	(.430, 11.534)
Unequal	2.19	26.62	.038	2.733	(.373, 11.591)

09 Mar 98 SPSS for MS WINDOWS Release 6.83

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
HOS3				
GRP 1	16	62.4375	14.128	3.532
GRP 2	42	60.2857	10.083	1.556

Mean Difference = 2.1518

Levene's Test for Equality of Variances: F= 5.664 P= .021

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.65	56	.520	3.323	(-4.506, 8.809)
Unequal	.56	21.10	.583	3.859	(-5.876, 10.180)

Variable	Number of Cases	Mean	SD	SE of Mean
HOS4				
GRP 1	15	61.4667	11.837	3.056
GRP 2	37	60.1892	9.463	1.556

Mean Difference = 1.2775

Levene's Test for Equality of Variances: F= 1.785 P= .188

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.41	50	.684	3.117	(-4.985, 7.540)
Unequal	.37	21.63	.713	3.430	(-5.837, 8.392)

09 Mar 98 SPSS for MS WINDOWS Release 6.84

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
IS3				
GRP 1	16	67.4375	11.087	2.772
GRP 2	42	65.5238	10.225	1.578

Mean Difference = 1.9137

Levene's Test for Equality of Variances: F= .808 P= .372

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.62	56	.536	3.074	(-4.245, 8.073)
Unequal	.60	25.32	.554	3.189	(-4.657, 8.484)

Variable	Number of Cases	Mean	SD	SE of Mean
IS4				
GRP 1	15	67.0667	9.801	2.531
GRP 2	37	63.2432	10.412	1.712

Mean Difference = 3.8234

Levene's Test for Equality of Variances: F= .209 P= .650

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.22	50	.228	3.136	(-2.477, 10.123)
Unequal	1.25	27.50	.221	3.055	(-2.436, 10.083)

09 Mar 98 SPSS for MS WINDOWS Release 6.85

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
OC3				
GRP 1	16	68.0000	9.550	2.387
GRP 2	42	64.6190	10.186	1.572

Mean Difference = 3.3810

Levene's Test for Equality of Variances: F= .145 P= .704

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.15	56	.256	2.944	(-2.517, 9.279)
Unequal	1.18	28.84	.247	2.858	(-2.466, 9.228)

Variable	Number of Cases	Mean	SD	SE of Mean
OC4				
GRP 1	15	67.4667	8.659	2.236
GRP 2	37	63.6757	10.244	1.684

Mean Difference = 3.7910

Levene's Test for Equality of Variances: F= .563 P= .457

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.26	50	.213	3.008	(-2.252, 9.834)
Unequal	1.35	30.57	.186	2.799	(-1.919, 9.501)

09 Mar 98 SPSS for MS WINDOWS Release 6.86

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
PAR3				
GRP 1	16	61.1875	14.312	3.578
GRP 2	42	61.7143	9.353	1.443

Mean Difference = -.5268

Levene's Test for Equality of Variances: F= 8.671 P= .005

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.16	56	.870	3.204	(-6.946, 5.892)
Unequal	-.14	20.08	.893	3.858	(-8.577, 7.523)

Variable	Number of Cases	Mean	SD	SE of Mean
PAR4				
GRP 1	15	62.6000	12.614	3.257
GRP 2	37	61.0000	10.614	1.745

Mean Difference = 1.6000

Levene's Test for Equality of Variances: F= 2.324 P= .134

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.47	50	.643	3.431	(-5.294, 8.494)
Unequal	.43	22.47	.669	3.695	(-6.065, 9.265)

09 Mar 98 SPSS for MS WINDOWS Release 6.87

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
PHOB3				
GRP 1	16	65.3125	13.108	3.277
GRP 2	42	60.0952	11.618	1.793

Mean Difference = 5.2173

Levene's Test for Equality of Variances: F= .463 P= .499

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.48	56	.146	3.536	(-1.867, 12.302)
Unequal	1.40	24.52	.175	3.735	(-2.478, 12.912)

Variable	Number of Cases	Mean	SD	SE of Mean
PHOB4				
GRP 1	15	65.2000	10.352	2.673
GRP 2	37	59.0000	10.687	1.757

Mean Difference = 6.2000

Levene's Test for Equality of Variances: F= .167 P= .685

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.91	50	.062	3.243	(-.315, 12.715)
Unequal	1.94	26.77	.063	3.199	(-.365, 12.765)

09 Mar 98 SPSS for MS WINDOWS Release 6.88

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
PSDI3				
GRP 1	16	66.3750	9.736	2.434
GRP 2	42	60.7619	8.851	1.366

Mean Difference = 5.6131

Levene's Test for Equality of Variances: F= .064 P= .801

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.10	56	.040	2.672	(.259, 10.968)
Unequal	2.01	25.02	.055	2.791	(-.136, 11.362)

Variable	Number of Cases	Mean	SD	SE of Mean
PSDI4				
GRP 1	15	66.6667	8.981	2.319
GRP 2	37	59.8108	8.666	1.425

Mean Difference = 6.8559

Levene's Test for Equality of Variances: F= .005 P= .943

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.56	50	.014	2.680	(1.472, 12.240)
Unequal	2.52	25.17	.018	2.722	(1.249, 12.463)

09 Mar 98 SPSS for MS WINDOWS Release 6.89

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
PST3				
GRP 1	16	67.3125	8.467	2.117
GRP 2	42	64.6667	7.833	1.209

Mean Difference = 2.6458

Levene's Test for Equality of Variances: F= .189 P= .665

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.12	56	.266	2.352	(-2.068, 7.360)
Unequal	1.09	25.39	.288	2.438	(-2.376, 7.667)

Variable	Number of Cases	Mean	SD	SE of Mean
PST4				
GRP 1	15	67.5333	7.736	1.997
GRP 2	37	63.8378	8.358	1.374

Mean Difference = 3.6955

Levene's Test for Equality of Variances: F= .013 P= .911

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.47	50	.147	2.507	(-1.340, 8.731)
Unequal	1.52	27.95	.139	2.424	(-1.272, 8.663)

09 Mar 98 SPSS for MS WINDOWS Release 6.90

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
PSY3				
GRP 1	16	66.0625	9.299	2.325
GRP 2	42	64.8333	7.796	1.203

Mean Difference = 1.2292

Levene's Test for Equality of Variances: F= 2.322 P= .133

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.51	56	.613	2.416	(-3.613, 6.071)
Unequal	.47	23.49	.643	2.617	(-4.187, 6.645)

Variable	Number of Cases	Mean	SD	SE of Mean
PSY4				
GRP 1	15	66.2667	9.550	2.466
GRP 2	37	62.9459	9.138	1.502

Mean Difference = 3.3207

Levene's Test for Equality of Variances: F= .691 P= .410

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.17	50	.247	2.833	(-2.371, 9.012)
Unequal	1.15	24.98	.261	2.887	(-2.627, 9.269)

09 Mar 98 SPSS for MS WINDOWS Release 6.91

t-tests for independent samples of GRP

Variable	Number of Cases	Mean	SD	SE of Mean
SOM3				
GRP 1	16	66.4375	9.550	2.387
GRP 2	42	58.8095	11.167	1.723

Mean Difference = 7.6280

Levene's Test for Equality of Variances: F= .347 P= .558

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.41	56	.019	3.160	(1.296, 13.960)
Unequal	2.59	31.56	.014	2.944	(1.629, 13.627)

Variable	Number of Cases	Mean	SD	SE of Mean
SOM4				
GRP 1	15	65.7333	8.803	2.273
GRP 2	37	60.7568	10.917	1.795

Mean Difference = 4.9766

Levene's Test for Equality of Variances: F= .356 P= .553

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.57	50	.123	3.174	(-1.400, 11.353)
Unequal	1.72	32.06	.095	2.896	(-.924, 10.877)

Appendix 7: SPSS Output: t-tests for independent samples by sex

09 Mar 98 SPSS for MS WINDOWS Release 6.124

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
A1				
SEX 1	25	14.2400	4.075	.815
SEX 2	8	12.7500	4.367	1.544

Mean Difference = 1.4900

Levene's Test for Equality of Variances: F= .124 P= .727

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.89	31	.383	1.683	(-1.943, 4.923)
Unequal	.85	11.19	.411	1.746	(-2.354, 5.334)

Variable	Number of Cases	Mean	SD	SE of Mean
ANX1				
SEX 1	25	72.0800	7.884	1.577
SEX 2	8	72.8750	13.538	4.786

Mean Difference = -.7950

Levene's Test for Equality of Variances: F= .771 P= .387

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.21	31	.837	3.843	(-8.635, 7.045)
Unequal	-.16	8.57	.878	5.039	(-12.198, 10.608)

09 Mar 98 SPSS for MS WINDOWS Release 6.125

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
D1				
SEX 1	25	11.0400	4.057	.811
SEX 2	8	10.7500	2.493	.881

Mean Difference = .2900

Levene's Test for Equality of Variances: F= 3.164 P= .085

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.19	31	.851	1.528	(-2.826, 3.406)
Unequal	.24	19.75	.811	1.198	(-2.209, 2.789)

Variable	Number of Cases	Mean	SD	SE of Mean
DEP1				
SEX 1	25	72.1600	7.215	1.443
SEX 2	8	77.6250	5.605	1.981

Mean Difference = -5.4650

Levene's Test for Equality of Variances: F= 1.945 P= .173

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.95	31	.060	2.796	(-11.170, .240)
Unequal	-2.23	15.15	.041	2.451	(-10.691, -.239)

09 Mar 98 SPSS for MS WINDOWS Release 6.126

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
GSI1				
SEX 1	25	72.8800	6.187	1.237
SEX 2	8	74.5000	6.719	2.375

Mean Difference = -1.6200

Levene's Test for Equality of Variances: F= .251 P= .620

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.63	31	.532	2.563	(-6.849, 3.609)
Unequal	-.60	11.08	.557	2.678	(-7.517, 4.277)

Variable	Number of Cases	Mean	SD	SE of Mean
HOS1				
SEX 1	25	66.4400	9.709	1.942
SEX 2	8	66.3750	13.212	4.671

Mean Difference = .0650

Levene's Test for Equality of Variances: F= 1.021 P= .320

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.02	31	.988	4.306	(-8.720, 8.850)
Unequal	.01	9.55	.990	5.059	(-11.209, 11.339)

09 Mar 98 SPSS for MS WINDOWS Release 6.127

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
IS1				
SEX 1	25	72.8800	7.918	1.584
SEX 2	8	70.1250	9.949	3.517

Mean Difference = 2.7550

Levene's Test for Equality of Variances: F= 1.130 P= .296

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.81	31	.427	3.420	(-4.222, 9.732)
Unequal	.71	10.01	.491	3.858	(-5.842, 11.352)

Variable	Number of Cases	Mean	SD	SE of Mean
OC1				
SEX 1	25	68.7600	7.546	1.509
SEX 2	8	71.0000	11.148	3.942

Mean Difference = -2.2400

Levene's Test for Equality of Variances: F= 2.363 P= .134

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.65	31	.521	3.450	(-9.278, 4.798)
Unequal	-.53	9.15	.608	4.221	(-11.790, 7.310)

09 Mar 98 SPSS for MS WINDOWS Release 6.128

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PAR1				
SEX 1	25	67.4800	9.841	1.968
SEX 2	8	61.8750	13.474	4.764

Mean Difference = 5.6050

Levene's Test for Equality of Variances: F= 3.229 P= .082

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.28	31	.210	4.374	(-3.319, 14.529)
Unequal	1.09	9.51	.304	5.154	(-5.883, 17.093)

Variable	Number of Cases	Mean	SD	SE of Mean
PHOB1				
SEX 1	25	67.2800	11.062	2.212
SEX 2	8	66.8750	13.892	4.911

Mean Difference = .4050

Levene's Test for Equality of Variances: F= 1.831 P= .186

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.08	31	.933	4.777	(-9.341, 10.151)
Unequal	.08	10.01	.942	5.387	(-11.601, 12.411)

09 Mar 98 SPSS for MS WINDOWS Release 6.129

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PSDI1				
SEX 1	25	70.4800	6.015	1.203
SEX 2	8	69.2500	3.495	1.236

Mean Difference = 1.2300

Levene's Test for Equality of Variances: F= 3.562 P= .069

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.55	31	.589	2.253	(-3.366, 5.826)
Unequal	.71	21.04	.484	1.724	(-2.357, 4.817)

Variable	Number of Cases	Mean	SD	SE of Mean
PST1				
SEX 1	25	69.4800	6.152	1.230
SEX 2	8	70.2500	9.823	3.473

Mean Difference = -.7700

Levene's Test for Equality of Variances: F= 1.280 P= .267

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.27	31	.793	2.903	(-6.693, 5.153)
Unequal	-.21	8.83	.839	3.685	(-9.107, 7.567)

09 Mar 98 SPSS for MS WINDOWS Release 6.130

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PSY1				
SEX 1	25	69.4400	8.699	1.740
SEX 2	8	70.6250	7.708	2.725

Mean Difference = -1.1850

Levene's Test for Equality of Variances: F= .201 P= .657

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.34	31	.733	3.447	(-8.216, 5.846)
Unequal	-.37	13.23	.720	3.233	(-8.172, 5.802)

Variable	Number of Cases	Mean	SD	SE of Mean
SOM1				
SEX 1	25	66.9600	11.028	2.206
SEX 2	8	67.7500	10.306	3.644

Mean Difference = -.7900

Levene's Test for Equality of Variances: F= .010 P= .920

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.18	31	.859	4.415	(-9.797, 8.217)
Unequal	-.19	12.58	.856	4.259	(-9.994, 8.414)

09 Mar 98 SPSS for MS WINDOWS Release 6.131

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
A4				
SEX 1	39	8.4615	3.531	.565
SEX 2	13	11.3077	4.644	1.288

Mean Difference = -2.8462

Levene's Test for Equality of Variances: F= 1.817 P= .184

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.32	50	.024	1.226	(-5.309, -.384)
Unequal	-2.02	16.87	.059	1.407	(-5.814, .122)

Variable	Number of Cases	Mean	SD	SE of Mean
ANX4				
SEX 1	39	61.5641	10.316	1.652
SEX 2	13	72.4615	10.096	2.800

Mean Difference = -10.8974

Levene's Test for Equality of Variances: F= .010 P= .919

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.32	50	.002	3.287	(-17.501, -4.294)
Unequal	-3.35	21.00	.003	3.251	(-17.660, -4.135)

09 Mar 98 SPSS for MS WINDOWS Release 6.132

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
D4				
SEX 1	39	6.4103	3.242	.519
SEX 2	13	9.6154	3.948	1.095

Mean Difference = -3.2051

Levene's Test for Equality of Variances: F= 3.038 P= .087

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.92	50	.005	1.097	(-5.409, -1.002)
Unequal	-2.64	17.72	.017	1.212	(-5.752, -.658)

Variable	Number of Cases	Mean	SD	SE of Mean
DEP4				
SEX 1	39	63.3333	8.206	1.314
SEX 2	13	72.3846	9.605	2.664

Mean Difference = -9.0513

Levene's Test for Equality of Variances: F= .486 P= .489

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.30	50	.002	2.742	(-14.560, -3.542)
Unequal	-3.05	18.21	.007	2.970	(-15.293, -2.809)

09 Mar 98 SPSS for MS WINDOWS Release 6.133

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
GSI4				
SEX 1	39	64.2308	8.505	1.362
SEX 2	13	71.6154	9.904	2.747

Mean Difference = -7.3846

Levene's Test for Equality of Variances: F= .440 P= .510

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.60	50	.012	2.838	(-13.086, -1.683)
Unequal	-2.41	18.28	.027	3.066	(-13.828, -.942)

Variable	Number of Cases	Mean	SD	SE of Mean
HOS4				
SEX 1	39	59.7436	9.843	1.576
SEX 2	13	63.0000	10.870	3.015

Mean Difference = -3.2564

Levene's Test for Equality of Variances: F= .196 P= .660

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.01	50	.319	3.234	(-9.754, 3.241)
Unequal	-.96	19.01	.350	3.402	(-10.379, 3.866)

09 Mar 98 SPSS for MS WINDOWS Release 6.134

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
IS4				
SEX 1	39	63.4872	10.110	1.619
SEX 2	13	66.9231	10.820	3.001

Mean Difference = -3.4359

Levene's Test for Equality of Variances: F= .029 P= .866

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.04	50	.302	3.294	(-10.053, 3.181)
Unequal	-1.01	19.48	.326	3.410	(-10.574, 3.703)

Variable	Number of Cases	Mean	SD	SE of Mean
OC4				
SEX 1	39	63.6667	9.362	1.499
SEX 2	13	68.0769	11.034	3.060

Mean Difference = -4.4103

Levene's Test for Equality of Variances: F= 1.163 P= .286

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.41	50	.166	3.135	(-10.709, 1.888)
Unequal	-1.29	18.12	.212	3.408	(-11.571, 2.751)

09 Mar 98 SPSS for MS WINDOWS Release 6135

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PAR4				
SEX 1	39	60.7949	10.829	1.734
SEX 2	13	63.4615	12.197	3.383

Mean Difference = -2.6667

Levene's Test for Equality of Variances: F= .711 P= .403

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.75	50	.460	3.578	(-9.855, 4.522)
Unequal	-.70	18.73	.492	3.801	(-10.625, 5.292)

Variable	Number of Cases	Mean	SD	SE of Mean
PHOB4				
SEX 1	39	58.3077	10.291	1.648
SEX 2	13	68.2308	9.302	2.580

Mean Difference = -9.9231

Levene's Test for Equality of Variances: F= 1.145 P= .290

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3.08	50	.003	3.223	(-16.397, -3.449)
Unequal	-3.24	22.60	.004	3.061	(-16.257, -3.589)

09 Mar 98 SPSS for MS WINDOWS Release 6.136

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PSDI4				
SEX 1	39	60.8974	9.245	1.480
SEX 2	13	64.4615	8.959	2.485

Mean Difference = -3.5641

Levene's Test for Equality of Variances: F= .500 P= .483

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.21	50	.231	2.939	(-9.469, 2.340)
Unequal	-1.23	21.19	.231	2.892	(-9.581, 2.452)

Variable	Number of Cases	Mean	SD	SE of Mean
PST4				
SEX 1	39	63.2051	7.234	1.158
SEX 2	13	70.0000	9.399	2.607

Mean Difference = -6.7949

Levene's Test for Equality of Variances: F= 1.444 P= .235

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.72	50	.009	2.501	(-11.819, -1.771)
Unequal	-2.38	17.00	.029	2.852	(-12.815, -.775)

09 Mar 98 SPSS for MS WINDOWS Release 6.137

t-tests for independent samples of SEX

Variable	Number of Cases	Mean	SD	SE of Mean
PSY4				
SEX 1	39	62.4615	9.081	1.454
SEX 2	13	68.2308	8.861	2.458

Mean Difference = -5.7692

Levene's Test for Equality of Variances: F= .000 P= 1.000

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.00	50	.051	2.892	(-11.578, .040)
Unequal	-2.02	21.06	.056	2.856	(-11.709, .171)

Variable	Number of Cases	Mean	SD	SE of Mean
SOM4				
SEX 1	39	61.3333	10.396	1.665
SEX 2	13	64.7692	10.872	3.015

Mean Difference = -3.4359

Levene's Test for Equality of Variances: F= .020 P= .889

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.02	50	.312	3.366	(-10.199, 3.327)
Unequal	-1.00	19.85	.330	3.444	(-10.622, 3.750)

Appendix 8: SPSS Output: MANOVA by group, at stages 3 and 4

* * * * * * Analysis of Variance (Stage 3) * * * * * *

EFFECT .. GRP
Multivariate Tests of Significance (S = 1, M = 6 , N = 20 1/2)

Test Name	Value	Exact F	Hypoth. DF	Error DF	Sig. of F
Pillais	.26790	1.12396	14.00	43.00	.366
Hotellings	.36594	1.12396	14.00	43.00	.366
Wilks	.73210	1.12396	14.00	43.00	.366
Roys	.26790				

Note.. F statistics are exact.

Multivariate Effect Size and Observed Power at .0500 Level

TEST NAME	Effect Size	Noncent.	Power
(All)	.268	15.735	.58

EFFECT .. GRP (Cont.)
Univariate F-tests with (1,56) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
SOM3	674.15528	6480.41369	674.15528	115.72167	5.82566	.019
PSY3	17.50503	3788.77083	17.50503	67.65662	.25873	.613
PST3	81.10848	3590.77083	81.10848	64.12091	1.26493	.266
PSDI3	365.04475	4633.36905	365.04475	82.73873	4.41202	.040
PHOB3	315.37449	8111.05655	315.37449	144.84030	2.17739	.146
PAR3	3.21521	6659.00893	3.21521	118.91087	.02704	.870

OC3	132.44007	5621.90476	132.44007	100.39116	1.31924
.256					
IS3	42.43114	6130.41369	42.43114	109.47167	.38760
.536					
HOS3	53.64624	7162.50893	53.64624	127.90195	.41943
.520					
GSI3	241.81291	4414.34226	241.81291	78.82754	3.06762
.085					
DEP3	235.55265	4190.72321	235.55265	74.83434	3.14765
.081					
D3	65.84575	890.72321	65.84575	15.90577	4.13974
.047					
ANX3	605.50503	6347.27083	605.50503	113.34412	5.34218
.025					
A3	64.21193	894.77083	64.21193	15.97805	4.01876
.050					

* * * * * * Analysis of Variance (Stage 4) * * * * * *

EFFECT .. GRP
Multivariate Tests of Significance (S = 1, M = 5 1/2, N = 18)

Test Name	Value	Exact F	Hypoth. DF	Error DF	Sig. of F
Pillais	.32004	1.37585	13.00	38.00	.216
Hotellings	.47068	1.37585	13.00	38.00	.216
Wilks	.67996	1.37585	13.00	38.00	.216
Roys	.32004				

Note.. F statistics are exact.

Multivariate Effect Size and Observed Power at .0500 Level

TEST NAME	Effect Size	Noncent.	Power
(All)	.320	17.886	.66

EFFECT .. GRP (Cont.)
Univariate F-tests with (1,50) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
A4	104.54501	706.89730	104.54501	14.13795	7.39464	.009
ANX4	736.70551	5687.96757	736.70551	113.75935	6.47600	.014
D4	107.21001	579.46306	107.21001	11.58926	9.25081	.004
DEP4	459.85617	4004.66306	459.85617	80.09326	5.74151	.020
GSI4	381.92654	4075.76577	381.92654	81.51532	4.68533	.035
HOS4	17.41791	5185.40901	17.41791	103.70818	.16795	.684

IS4 156.02509 5247.74414 156.02509 104.95488 1.48659
.228
OC4 153.38933 4827.84144 153.38933 96.55683 1.58859
.213
PAR4 27.32308 6283.60000 27.32308 125.67200 .21742
.643
PHOB4 410.27308 5612.40000 410.27308 112.24800 3.65506
.062
PSDI4 501.66407 3833.00901 501.66407 76.66018 6.54400
.014
PST4 145.75887 3352.76036 145.75887 67.05521 2.17371
.147
SOM4 264.33278 5375.74414 264.33278 107.51488 2.45857
.123

Section C

Case Study

Section C

Case Study

Introduction

J. referred herself to me in my capacity of staff counsellor in a large organisation. In her early thirties, she was considering doing some part-time counselling training and said that she wanted to experience what it felt like to be a client, but also she had some issues she wished to clarify.

As will become clear, those issues were closer to the surface and more emotionally charged than she initially admitted or was aware of and I have explored this piece of brief counselling in this case report by using a range of psychodynamic concepts that seem to best capture the essence of what took place. I have done this by means of footnotes in this section of the thesis so as to disturb the narrative flow of the case as little as possible. I should also like to add a word about formulations here. At certain points during the case I made theoretical formulations of J's problems for my own understanding and to share with her as an aid to insight. However I concur with the view of Crellin (1998) who writes of formulation that "it can become a dangerous exercise if I begin to believe that I am the 'knowing other'. This may lead me away from understanding ..... as I impose borrowed ideas onto another's struggle to make sense of their life. Formulation may be a useful concept but there may be limitations and dangers when it is applied to individual experience". Crellin quotes the work of Levinas, who wrote of our need to reduce the infinite down to what is circumscribed and 'graspable', and the danger, therefore, of reducing the client to an object, losing their otherness, their experience and our experience of them (Levinas 1979).

I have chosen to discuss this particular case because in its interpersonal dynamics it encapsulates in a small number of sessions much of the intensity and excitement that can be experienced in the therapeutic encounter, and also because it illustrates how those very experiences may make it difficult for the counselling psychologist to maintain an effective therapeutic stance for the benefit of the client by keeping in mind the caveats about 'knowing' that I have just described. Whether

we chose to describe such events in terms of transference and counter-transference or in other terms, the reality is that we take our own developmental history with us into the counselling room and that danger looms if we ignore that, however well qualified we may be.

The first session was set up for one week after the initial contact and at the end of that session a contract was made to continue, once a week, for nine sessions in all (unless she wished to terminate sooner) after which changes in J's circumstances would make attendance difficult. The limits of confidentiality were explained, including the use of supervision.

The first four sessions.

J. settled into her seat and smiled at me in a warm friendly manner and said again that she wasn't sure why she had made the appointment, except that it seemed a good idea to take the opportunity to see what being a client was like. I asked her to tell me something about herself and she explained that she lived with her partner, a man a little younger than herself, and her two daughters aged 3 and 8. After she had been speaking for a while her manner started to change, becoming more serious. She had had a very unhappy adolescence, she said, and had felt very isolated. She had become bulimic at about 16 and this had continued into her early 20's. As J. told me this the tears welled up in her eyes and she became very distressed. After a little while I reflected back that these memories were still very powerful for her, and she nodded and went on to tell me how her parents were unaware of her distress throughout this time and how she had felt unable to talk to them. She continued to cry gently as she talked.

J. was clearly surprised at how close to the surface her emotions were and commented on this a couple of times. At the end of the 50 minutes I asked if she wished to continue the following week, she said she did and so we agreed on the contract. J. thanked me and left, smiling but still looking surprised.

I too had been a little taken aback by the way in which J's emotional hurt had surfaced and had felt for her - had felt that I wanted to protect her, to make it better. There already seemed to be a powerful countertransference to do with taking care, with parenting.

When J. arrived for her second session she seemed eager to start. She said that she had been crying on and off all week as she thought about what we had discussed and was still amazed by her own emotional reactions. Most of this session was spent exploring J's memories and feelings about what her mother had told her about her birth and infancy - how her mother had obtained no pleasure from pregnancy, had tried to minimise the experience of birth, to get it over with and out of the way as quickly as possible, and had made her feelings of loss at becoming a mother quite clear to her daughter. J. compared this to her own happiness at becoming a mother and her delight in the minute-by-minute experiences of motherhood, despite the difficult circumstances at the time.

Those circumstances were more fully revealed in the third session, in which J. focused on her relationships with men. These had begun when she went away to college and toward the end of her studies she had a relationship with G. - she had been flattered by this attractive and much desired man being interested in her, even though friends told her he only wanted sex and not a relationship. She soon became pregnant, whereupon G. left. Her parents offered to pay for an abortion or to look after the baby if she returned home, but she decided to take up the offer from a friend of the use of an isolated country cottage. She had her baby there and lived alone, although groups of friends came to stay for periods. She made a few attempts to trace G. but eventually gave up, feeling hurt and bitter towards him but happy with her daughter. One of the friends who visited became firstly a lodger and then in time J's present partner - D. is a little younger than her and a quiet, less demonstrative person. J's second daughter was born three years ago. She said that her relationship with D. is good but that not all her needs for affection are met - she would like them to talk more about the relationship, but D. finds this difficult.

During these two sessions J. had been smiling, reflective, wistful and had sobbed a little, and I had done little more than reflect her feelings and help her to tell her story. As she spoke about not having all her emotional needs met I wondered if she was telling me something about her hopes, needs or fantasies of the therapy.

When she arrived for the fourth session she told me that something significant had happened since the previous session. She and D. had called in to an Indian restaurant during the week for a take-away; a waiter had told her twice that she was in his way, and his manner had reminded her of an incident when she was about 16 and dining in a similar restaurant. She had asked a waiter the way to the toilet and he had followed her and kissed and fondled her. She had pushed him away. Thinking about this during the week, J. had suddenly remembered being sexually assaulted when she was 14.

She often used to stay over at a school friends', an Italian Catholic family. One evening she and her friend had lingered to chat to some boys outside the house. When they went in the father threw his daughter onto the sofa, took off his belt and beat her, whilst J. watched helplessly. He then drove J. home, but stopped before getting there and

assaulted her in the car. She said nothing about what had happened either when she got home, or later, but never went back to her friend's house.

As J. told me this she was smiling wistfully. She then said that she had got upset when she remembered this, but also angry and had started to wonder if it had been associated with her becoming bulimic. It did cause her much confusion about sex and about men and made her feel bad about herself for keeping quiet. Looking back now she feels that she has been angry with men for many years because of this. She then talked a bit more about her teenage years and said that she had wondered after the assault if she had led him on: "He used to come in to the room when we got ready for bed and joke and kiss us". I said that it must have seemed to her as though she was doubly guilty, first for leading him on and then for saying nothing. J. burst into tears at this: "I can't believe it - after all this time!" and then "I can't remember what I felt like afterwards at all!" As she dabbed her tears she looked directly at me, her eyes wide and if felt to me that there was a moment of very intimate, very direct and powerful contact between us. There was a pause and then J. said "I'd like to hurt him now". I asked what she would like to do to him. "Castrate him" she said with a grim laugh.

J. then talked about her fear of being overwhelmed by her anger should a man hurt her daughters in some way, of going 'over the top' because of her own unresolved issues. She then returned to her memories of adolescence, of wondering if her father had sexual desires towards her friends like the man who had attacked her, of sex and violence becoming confounded in her mind, of feeling that she had no control in relationships. When G. left her she vowed not to be a victim any more, even if it meant not having any relationships. "But those years before - what a waste of my life" she cried. She also said that once she had finished the course she wanted to become a volunteer helper with Women's Aid. As we came towards the end of the session I said that I was very conscious of being a man listening to her talking of her feelings and her anger towards men and I wondered how that felt to her. "I feel safe, I feel comfortable with you - also I can protect myself now. I would have no qualms about hurting a man who threatened me. But perhaps also with you being a man you can help me understand how men feel about women".

This session was followed by a three-week gap during which I took J's case to a peer supervision meeting. Colleagues in the group focused on an impression of a sexually seductive woman. I was also thinking about my counter-transference during the first session and the moment in the fourth session when I felt disturbed - it seemed to me that as well as there being a genital sexual element to what was going on, of me becoming aware of my own desire and perhaps J. too, there was also something pre-oedipal, something to do with a loss, or rather a never having had, of mothering.[1] Had the infant J. failed to introject a caretaking mother image because of her mother's pathology?[2] Was I being asked to take that position? There was a powerful and primitive neediness in the contact. Such a failure of introjection would lead to a great fear of separation and individualisation and certainly I noticed that

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1 I am thinking here of Kleinian and Object Relations ideas of the importance of early experiences. Fairbairn, for example, talked about the establishment of a satisfactory object-relationship during the period of infantile dependence as being crucial:

"The traumatic situation is one in which the child feels he is not really loved as a person and that his own love is not accepted".

Winnicott took this further, writing about the mother as well as her infant's fantasies of her:

"The important thing in my view is that the mother through identification of herself with her infant knows what the infant feels like and so is able to provide almost exactly what the infant needs ....." (Winnicott, in Hughes 1989).

Problems arise when the mother's own issues interfere with this process.

2 It seems that J's mother was not able to provide a "facilitating environment" in Winnicott's terms because of her own problems. What should occur at this time according to Segal (1964) is that

"there is a strengthening of the ego .... by the assimilation of good objects which are introjected into the ego".

This introjection of a soothing and protective "environment-mother" allows the infant to begin to distinguish between itself and its mother and to feel confident in its mother's ability to bring comfort when needed. This is Winnicott's "transitional space". When however the mother experiences the baby as a "small foreign body" such introjection cannot take place and any separation may come to be feared as potentially destructive to the self.

J. found it hard to leave at the end of sessions, lingering to chat. And then again, what of the father? J. had speculated about whether her father desired her friends after her assault - had she also wondered whether he desired her? J. had said, just after looking meaningfully at me, that she would like to "hurt him now.....to castrate him". Who was she referring to - her attacker, certainly; but also her father? And was I also representing her father? He didn't have much of an emotional presence so far and neither did D. Also J. had had her first baby well away from men - quite understandably protecting herself from hurt, but also protecting men from her own desires? She had felt guilt about "leading on" her attacker - was she also feeling guilty about desiring her father?

I also thought about her bulimia in adolescence. Here perhaps was a way of her taking some control of her body for herself, also of punishing herself for fantasised crimes, perhaps of punishing her body for responding sexually. As well as this, was she resorting to a psychobiological mode of being rather than a psychosexual one, since she was deprived of other means to communicate her emotional distress?[3] She had also described her bulimia as like having a drug habit, as being addictive, and indeed bulimia had been grouped with substance dependency as one of the psychic "solutions" to the terror of individualisation.[4] And which aspect of the bulimia was important for her - the bingeing, the taking in, the neediness; or the purging, the getting rid of, the expelling? What took its place when it ceased? Was it becoming pregnant - literally "full" of child?

Then there was my position in this. A felt insufficiency of parental emotional caretaking had played a part in my own therapeutic story. To what extent was I projecting my own issues onto my work with J.?[5]

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3 In order to cope with unconscious hostile feelings towards the parent(s) in situations in which other means of expression are not available, McDougall (1989) suggests that unrecognised emotional conflicts may be manifested in bodily communications such as anorexia or bulimia.

4 McDougall discusses this in relation to the lack of responsive mothering suggested above.

5 This raises a number of issues to do with transference and counter-transference. Firstly it is interesting in itself that I have turned to Klein and Object-Relations as a theoretical framework within which to muse on my experiences of the

Separation was also something difficult for me because of childhood events - if our sessions went over time was that to do with J. or with me, or was it in the interaction between us?

Sessions five to eight.

At the start of the next session J. told me that during the previous week she had felt as she often did just before her period - irritable and unhappy in her body and this reminded her of when she was younger and had rarely felt comfortable with herself. She remembers thinking

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early sessions with J. Is this an example of theory as counter-transference?

Secondly, Lambert cites Racker's (1968) distinction between neurotic and proper counter-transference: "The former would develop were the analyst to become identified with his own infantile and child feelings in relation to the patient".

An example of this would be the therapist's need to rescue the client from pain because he/she can't bear his/her own pain. This sounds uncomfortably like my feeling in session one. Lambert goes on to say, however, that the crucial point is not that the therapist reacts out of the infantile, but that he/she doesn't identify with these reactions and so develop a pathological relationship with the client. In other words, that the counsellor/therapist is sufficiently aware of their own wobbly areas not to fall into the trap waiting for them.

Racker also identified two varieties of counter-transference proper: the first is called concordant and seems to have much in common with Carl Rogers' core conditions of empathy, respect and genuineness. It stems from the therapist's own experience of good enough handling by parents or own therapist. The other is called complementary and occurs when

> "The patient treats the analyst as a projected internal object, with the result that .... the analyst feels treated as such and experiences emotions appropriate to such treatment" (Racker 1968).

It seemed to me that at times with J. I felt like aspects of both father and mother and that it was because of my own therapy that I was able to avoid responding, to some extent, as if J. was "one of my own internal objects in projection" as Lambert puts it.

Mann (1995) writes about the way in which the therapist can fulfil different roles in the Oedipal triangle, identifying with perhaps an abusing father, a colluding or avoiding mother, or the child in the family, and that the containment of the powerful passions associated with these relationships within the ethical boundaries of the therapy helps in the resolution of the client's difficulties.

about killing herself "when little" but decided it would make too much mess for her mother. I missed the oddness of this at the time, but in retrospect it connects with comments later in the session about "being good".

She referred to her bulimic years and I asked if we might talk about them further. She described how good she had felt at having a flat stomach after purging and how she now feels that if she had had a regular sexual relationship at the time the bulimia would not have occurred or at least would not have continued - when in her early twenties she was very active sexually it became less important and then ceased. Significantly she also said "I felt wanted". I asked what had taken the place of the bulimia and J. quickly said "I was pregnant". I thought (but didn't say) that it was as if the "taking in", the "filling the void" aspect of the eating disorder was being physically satisfied firstly by a penis and then a baby and emotionally satisfied by feeling wanted by men and then by the baby. I asked about the purging - what symbolically was she getting rid of? J. felt it was linked to her need to be a "good" person, the perfect daughter then and perfect mother now. The urge to purge had been very strong and connected, she suggested, with her dark side, her "bad" bits that had to be got rid of. I interpreted in terms of a strong internalised parental voice at odds with her sexual desires and she nodded. I then said something about sex as an attempt to find intimacy and J. agreed that this had been and still is the case for her. The 50 minutes were up then and J. laughed and asked if I still wanted to see her next week. I reminded her of our contract and that she could stop whenever she wished. She said it was helping her and she wanted to continue. I wondered about J's question afterwards and what it said about her and about her phantasies of me. Having voiced her needs and acknowledged her desires, was she still worthy of my time? Did I still want to be bothered with such a "bad person"? There was also an obvious question that I hadn't yet considered; what cross-roads was J. now at, that led her firstly to a course and then to counselling? Her children would soon both be at school. If there was an existential void there, this would act as a potent reminder of it. Indeed her interest in the counselling field could be seen as an attempt to hide such a void behind the pain of others, as it may be for many of us.

After this session I met with my supervisor and we focused on my work with J. For my supervisor the important aspect of the work that I

described was my acknowledgement of my own past, my sexuality, my own desire, in what was going on. This relates to the concept of neurotic counter-transference.

Early in the next session I made a link between what J. was talking about and her question at the end of the previous session and I attempted to explain my understanding of what may have been beyond it. J. denied any unconscious element and referred instead to practicalities like childcare arrangements during the sessions. However she did go on to talk about trust in her relationship with D. - how she felt she could trust in him partly because he is younger, less ambitious, more lethargic than her. It was almost as if she was saying that she had chosen him because he was not dynamic enough ever to betray her. I suggested the connection with her experience of earlier betrayals and a need to then be the more powerful partner. She agreed with this and could see how she came to be in a relationship she now finds a little limiting because of D's inertia, despite her love for him. I felt that we were successfully working with two poles of Malan's triangle,[6] but that I was not able to help J. make use of the third, the here-and-now, at least in an explicit way.

The following week I was away at a conference and so it was two weeks before J. and I met for our seventh session. J. said that she would like to use the time to focus on the future, to explore her opportunities for paid or voluntary work using counselling skills. This session felt light, undemanding and emotionally empty. At the end J. checked that there were two sessions left and then said that she wanted to talk about how she could discuss with her older daughter who her real father was. I reassured her that we would look at that the next week. When J. left I realised that we had gone 10 minutes over time. It was as if J. was punishing me for being away the previous week by

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6 Malan (1979) uses the idea of a Triangle of Persons, with "Other" (i.e. current life), "Transference" (here-and-now) and "Parent" (past) as the corners. I find this a useful concept and felt at this point with J. that we were doing beneficial work with the O/P link as Malan calls it, but that the links via the transference corner were not yet being fully acknowledged. Malan also uses a second triangle, that of Conflict, with Defence, Anxiety and Hidden Feeling at the corners; perhaps J's anxiety was too great to allow access to hidden feelings. Casement (1985) writes about the way in which the client monitors the state of the therapist, both consciously and unconsciously and perhaps this played a part here as well.

avoiding emotional engagement and then by dropping in something significant right at the end. In retrospect perhaps she was saying something about the approaching ending of the counselling, too.[7]

At this point in the relationship I felt a deadness in the process that contrasted sharply with the vitality of the early sessions. I also felt that I was not able to help J. make use of the transference to gain insight into her problems because of my own fears, my own desire. I was able to acknowledge that but not to use it for the client.

The next session came to life again, though. It had been preceded by a supervision session in which my supervisor had listened carefully to my account of the situation with J. and had then reaffirmed her support and agreement for what I was struggling with. We discussed some ideas about how to incorporate the here-and-now into the final session or two. I had also explored the issues that were being raised for me by the case in personal therapy for the preceding couple of weeks and so I felt well supported when J. arrived for session eight. She began by talking about her fears of upsetting her older daughter if she tried telling her about her real father. After a while I asked about D's place in this. J. joked that he didn't have one and started to talk about the pain of the time she spent caring for her infant daughter on her own. She had tried to breastfeed but had had insufficient milk and the baby had become dangerously undernourished and was rushed into hospital. J. cried as she told me of her guilt about this, relating it to her poor health at the time because of her bulimia and of how talking about any part of her daughter's infancy brings back the guilt. It was this that was making it hard for her to talk with her daughter about her father. It also makes

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7 Lacan suggests that speech is an attempt to rebuild a lost, imagined state of oneness:

"The function of language is not to inform but to evoke. What I seek in speech is the response of the other". (Lacan 1953).

Was J's speech in this session, at first seemingly empty but then at the very end full, an attempt to evoke a response that would in some way represent oneness? It is the Name-of-the-Father, the "Non" of the father, experienced in the Symbolic order, that stands in the way of the infant's phantasised wholeness and here I was saying that we had only two sessions left and J. responding by raising an issue about her daughter's father.

her hang on to all the responsibility for the child, she said, keeping D. at a distance from any decision making. I pointed out that that seemed to apply to much of their family life and J. agreed that it was difficult for her to let her control loosen. In retrospect this might have been a good opportunity to make a link with our counselling relationship, but instead I focused back onto her baby's lack of nourishment and onto the other people who could have borne some of the responsibility, such as the community nurse who gave her incorrect advice. Possibly valuable for J. but it felt like a retreat from the immediate relationship. At the end I reminded J. that the next session was the last and suggested that we might use it to review the events and themes of the counselling since session one. This too could be seen as me attempting to control the agenda of the final session so as to avoid the here-and-now of what was likely to be an emotionally charged hour.

The final session and conclusions.

Before the last session I reflected on the themes that ran through our work. There seemed to me to be two threads for J. The first began with the inadequacy of emotional care by her mother, which resulted in anxiety about individuation and separation and an emotional void at her core. She attempted to fill the void through bulimic bingeing and then through pregnancy and motherhood, becoming protective and possessive as her children grow and as D. figures more in the family, and in counselling she attempts to regain a fantasised state of wholeness with me, lingering at the end of sessions and producing a powerful countertransference in me. Her need to be the all-providing mother was however badly dented by feeding problems with her first baby, leaving her with powerful guilt feelings and a need to keep tight control in order to avoid further problems. The second thread seemed to be associated with her father and with her sexual development; perhaps with unresolved Oedipal desires[8] and the "bad thoughts" that had to be

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8 This speculation on my part of both pre-oedipal and oedipal themes in J's story is echoed by Jacobs (1985) who writes:

"Even those who write extensively about the earliest period of life acknowledge that oedipal problems cannot be by-passed even when deeper disturbances are present. When Guntrip writes that the first few years of analysis will be concerned with this oedipal period, it is clear that it is also going to be the one which predominates in the much shorter times involved in counselling".

expelled via bulimic purges in adolescence and also with the assault on her that left a confusion of sex and aggression. This was followed by G. betraying her trust and this added to her need to be in control. She learns self-defence and chooses a partner younger and less dominant than herself. Now however she is starting to find the relationship limiting and is feeling the re-emergence of the void as her children start school.

There was also a theme for me to do with the resonance of J's needs with my own. J. found it difficult to leave at the end of sessions and I couldn't end on time - the significance of endings was too great for us both. These were the things that couldn't be spoken of yet in the relationship. The theme for me was how to be using that resonance for J, rather than to misuse it for myself.

The ninth and last session began with me suggesting that we might use the time to review what had taken place and I started by saying that things had seemed to happen quickly in the early sessions. J. agreed and related that to feeling that here was someone she could like and trust and also to a state of readiness, perhaps because of her course. She asked what I thought the significant themes were in her story. I

Jacobs also points out that the oedipal situation is implicit in counselling, especially where client and counsellor are of the opposite sex. He discusses how the counsellor needs to draw a fine line between affirming the client's sexuality and encouraging sexual feelings and how the counsellor's "distance" can be constructively linked to the client's experiences of feelings towards a parent.

Despite Jacobs suggestion that oedipal issues will predominate, I was not able to address that in J's case, nor to make the link between how I was with her and her parental experiences. In our last session I did say to her that she was a bright and attractive woman, hoping to affirm her attributes, including sexuality, but this was more to do with looking to the future than with examining the past or the present.

Looking at this case from the perspective of brief therapy, however, it becomes more a question of which focus we choose as being most fitting, rather than which inevitably predominates. Thus Sifneos and Malan would advocate working with oedipal issues whilst Mann takes a more Winnicottian approach:

> "....any therapy becomes the patient's attempt at reunion in the battle against separation". (in Peake et al, 1988).

In either case the implication is that one focus is enough in brief work!

asked first what she thought had been significant and she talked about being able to share the locked away bits of herself and not finding anything too nasty lurking there. I then said that there seemed to be two themes and explained the first, that associated with a lack of early emotional care. J. nodded her agreement and said that she had found herself more able to remain herself and relate in an adult fashion to her mother during the past few weeks as a result of our work together - now that she could see her early experiences in some sort of context. She didn't allude to any here-and-now aspects of this. I then described the second theme, saying that this seemed less clear and that I felt we hadn't really had time to address it. J. agreed that her father was much less distinct for her and we talked about that a bit. I said something about the difficult relationship between fathers and daughters and J. reflected on this.[9] She said that she was now more aware of her need to keep the control and responsibility and had discussed this with D. and was starting to loosen up. She was also more at ease with the memories of her adolescence now.

I then pointed out that a third thread had to do with how her story was played out in the relationship between her and myself and that this could illuminate much that was significant for her. J. asked me to explain more and I said that it had felt that there was an attraction between us that had powered what had happened and that it was perhaps related both to her early lack of emotional caretaking and to later sexual confusions. J's response was neither to accept or reject this, but to nod and reiterate that she had felt that she could like and trust me. Was this an acceptable way of talking about what still could not be talked about?

Time was almost up. We ended by looking at the exciting possibilities for J. in the future as her children started full-time at school and she became free to develop her interests and abilities.

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9 Jacobs also writes some helpful stuff about this. In particular he talks about the difficult time when fathers and daughters

"do not know how to manage intimate feelings which previously came naturally .....since they are conscious of the sexuality of the other". (Jacobs 1985).

and of the need to affirm the child's love and sexuality and yet deflect it without being rejecting. It was this that I referred to with J. at this point.

So, what am I left with as I write this up? My first thought is that J. and I constructed a narrative for her that contained, perhaps explained and finally satisfied both her needs and mine - mine in this respect being to use my understanding of a psychodynamic way of working to help the client.[10] Within the limitations of nine sessions I feel J. has been helped, has sorted through and reworked a number of issues. Perhaps that is enough; perhaps my second thought, that we failed to get to grips with transference issues, the resistances and defences, the struggle of the moment, is asking too much of the time we had. On the other hand Krystal (1979) uses the term 'alexithymia' to describe clients whose early caretaking was emotionally depleted like J's was, and who therefore lack a 'language of feelings'. Such clients, it is suggested, will find particular difficulty in explaining or modulating their feelings and so will convert them into psychosomatic or addictive behaviours, such as J's bulimia. It may have been that J. had gone as far as she could at that time in describing and integrating her emotions, and that further movement would require lengthier work.[11]

As I pointed out at the beginning of this case study, I have used a variety of psychodynamic theories and concepts to help shed light on

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10 The narrative approach has been reviewed by McLeod (1994) and criticised by Sass (1992) at least in its more extreme forms, as not acknowledging the anxiety for the client of a relativistic account of their life. Nevertheless I find it a useful idea. Laplanche (1992) talks about deconstructing old narratives and making new ones about enigmatic fragments from childhood and this seems to fit the work with J. However he also says that we can never fully succeed - that a seamless account must by its nature be inaccurate. Another interesting application of the idea of narrative that is relevant here comes from Holmes (1994), who has looked at the implications of John Bowlby's work for the practice of counselling. Holmes suggests that an insecure attachment history such as J's is mirrored in how she tells her story, and that as counselling progresses the client begins to cast off their anxious attachment and their narrative comes to life as connections can be made or acknowledged.

11 Peake et al.(1988) uses Erik Erikson's developmental stages as a framework for assessing suitability for brief psychodynamic work. Thus clients like J. who had problems in the early stages (basic trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt) may require more 'parenting' than is possible in short-term work if they are to be able to acknowledge and resolve a transference characterised by feelings of rejection or abandonment to do with the always looming ending in brief work.

the process that took place. I am aware that there are a number of aspects of the case that I have not been able to discuss at sufficient length because of constraints of space, such as J's interest in pursuing a counselling course and working with Women's Aid, and my keeping control of the final session.

Finally, I am aware also that other perspectives could have been used in working with J. and in discussing this case. In particular I am struck by the absence of much of a feminist/constructivist perspective[12] in my work and reflections here, and wonder whether that is to do with the strength with which J's early neediness hooked into counter-transferential issues in myself and so areas where gender and power relations in society played a particularly significant part in J's story were overlooked, to the possible detriment of the counselling process. This brings me back to my opening comments about the ways in which our own histories can influence the range of interventions we might use with particular clients, and therefore to the continuing necessity of reflecting carefully and honestly on our practice, whatever our status or experience. And if a final reminder of that be needed, there could be none better than that of the master himself: Freud's case-study of his unfinished analysis of Dora (1953) is the first and still the best example

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12 Taylor (1996) usefully cites a number of goals of counselling which when enshrined in practice

> "provide the means whereby women in particular can examine why and how external reality is manifested in internal crisis and then begin to confront society's oppressive power and control."

In looking at my work with J., for example, I am aware of little there that might have helped to empower her to see her experiences as those of a woman in an environment of predominantly male-constructed meanings (and of which my contributions in the therapy constituted another example).

Also present in J's story was a developing theme to do with a woman's strength, perhaps in an essentialist sense of a rediscovery of an inner, female, power that can be utilized to protect or to attack (this can be seen as linked to the Jungian 'hairy self' discourse, represented by writings such as 'Iron John' [Bly 1990] and for women by Estes [1995]). J makes a number of references to her ability now to fend for herself physically, to defend herself and her children against male attack, and to be able to help others to do the same through her work. This too might have been explored given time.

of the unacknowledged operation of counter-tranference in the therapeutic relationship, and certainly the most written about.

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Section D

A critical review of the literature on stress in the health service workplace.

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Introduction

The purpose of this review is to critically discuss the representations of the concept of stress in the workplace, with particular reference to the health services workplace, that can be seen in the literature. In addition the implications of these representations for psychological interventions will be addressed. I shall attempt to show that a limited set of representations is predominant, a set that allows and fosters collusion with the workforce needs of our economic system, whilst paying scant attention to the psychosocial needs of the individual. Psychologists have played their part in developing and promoting these representations in the past, but it is my contention that counselling psychologists may be in a unique position to encourage an awareness of other approaches to thinking about stress. This is because their training encompasses a wide range of approaches to life events and experiences, and concern for the empowerment of the individual plays a central part in these. In addition many counselling psychologists are taking up roles in organisations where it may be possible to begin to influence policies and practice, although as I shall show, prevailing representations of workplace stress make this a difficult task.

One of my current responsibilities, as described in the introduction to this thesis, is the establishment and provision of a staff stress service at a general hospital. The initial proposal and service-level agreement for this provision (Taylor 1994) included three components: individual counselling; training related to stress management; and service evaluation. To date, eighteen months after initiating the service, the individual counselling provision is fully used despite understandable concerns about independence and confidentiality. In addition, as part of the training component, stress management workshops have been run for many groups of staff, aimed at increasing coping skills. The one area in the service proposal that has seen least progress, however, is the subsection of the training component that states "To facilitate stress management by changing management practice and policy." The advances that have been made have resulted from the interest of

individual managers, rather than from any impact the service may have had at a systems level. Personal communications and papers by colleagues (e.g. Broadbent 1995) indicate a similar reluctance by other hospitals and trusts to acknowledge the need for organisational, rather than personal, change in order to reduce stress. One of the reasons for this problem may lie in the way in which stress at work is understood and represented in the literature.

The initial emergence of the modern concept of stress is usually credited to firstly Walter Cannon and then and more importantly to Hans Selye (e.g. Hearnshaw 1987). Selye's general adaptation syndrome or GAS is seen by many as the definitive theory of stress. Underlying this work was and is the idea of a constant struggle between ourselves and our biology, which is seen to be outdated in relation to our lifestyles.

However the term "stress" has been used in many different ways. Kasl (1995) in an introductory chapter to a review of stress, medicine and health, describes five fundamentally different meanings:

i) Stress is an environmental condition, susceptible to objective definition and measurement. The term "stressor" is often used in this way, and puts the emphasis on stress as a stimulus, an independent variable.

ii) Stress is a subjective appraisal of an objective environmental condition. This implies that the meaning and therefore the impact of the stressor will vary across individuals.

iii) Stress is a response or outcome, such as a dysphoric mood or psychophysiological symptom of tension.

iv) Stress is a relational term linking environmental and personal characteristics, and referring in particular to an excess of environmental demand over personal capacity. The idea of the "person-environment fit" is an example of this.

v) Stress is a process that includes other important components such as appraisal, coping, and reappraisal, and cannot be represented by simple stimulus-response or cause-effect formulations.

In addition to these different usages of the term stress, there are also different approaches to its study. Cohen, Kessler and Gordon (1995) suggest three approaches can be seen, and these are linked to the disciplines of epidemiology, biology, and psychology. Thus the epidemiolgical approach uses the stimulus-based definition of stress and

attempts to identify the environmental variables that increase risk of adverse health outcomes.

The biological approach takes the response-based definition and focuses on the physiological effects in the body. The presence or absence of stress is denoted by specific aspects of a postulated integrated biological response pattern.

The psychological approach uses the transactional or interactional definition to emphasise the process of appraisal of both environmental factors and response capabilities as mediator between exposure and health or well-being. This is exemplified by McGrath's (1970) definition of stress: "a perceived substantial imbalance between demand and response capability, under conditions where failure to meet demand has important perceived consequences." Kasl (1995) suggests that it is in this, theoretically richer, approach that the construct of stress becomes most useful, since it encourages us to take full account of intervening dynamics and moderating influences when attempting to link exposure to outcome.

Representations of Stress

The popular conception of stress at work can be seen in numerous articles in the nursing press. Tschudin (1990) writes in the Nursing Times "Stress is necessary for survival, but where it leads to an excessive demand on an individual, beyond his or her ability to cope, stress becomes destructive." The article then goes on to describe a simple, essentially interactionist approach to stress, locating its sources in, respectively, the person, their colleagues, and their work environment. Similar but more elaborated representations can be seen in a number of other articles and papers. For example Dionne-Proulx and Pepin (1993) refer to stress as "an adaptive response, mediated by individual differences and/or psychological processes, that is a consequence of any external (environmental) action, situation or event that places excessive psychological or physical demands on a person" and go on to list such factors as the nature of the work, the role of the nurse, career progression, relationships with patients and colleagues, organisational structure and climate, and non-work events, as being potential stressors. Orton (1996), writing about General Practitioners, says "Normal coping is a balance between demands and coping mechanisms, ...and is influenced by our personality, biography, and

social supports." Others to apply this type of model of stress to health workers in recent articles have been Armstrong and McKay (1996), Sullivan (1993), Cavanagh and Snape (1993), and Stoter (1992). In his popular self-help book Managing Stress (1989) David Fontana adopts a similar position, encouraging readers to look in turn at their environment and themselves.

More academic papers that have attempted to develop and elaborate the interactional model include Cooper (1986), where the model is represented as shown in figure 1, and Cooper and Baglioni (1988), who distinguish three variants, or stages of development, of the model: (i) what they call the person-stressor interaction model, as described by Cox (1978), in which stress is seen as a product of the person and the stressors in the environment; (ii) the disposition model, in which the person's perception of the stressors determine the coping reaction and therefore the stress outcome; and (iii) the indigenous model, in which personality and coping strategies are inextricably linked in the perception of stressors. Factor analysis of the results of a survey of health service workers was carried out and indicated a best fit for the indigenous model, indicating that personality and coping strategies precede and determine the perception of work stressors and thus the mental well-being of the individual. Coping skills are therefore present at all times, rather than being invoked only after the perception of stress. Payne and Firth-Cozens adopt this position in the introduction to their influential edited volume on stress in health professionals (1987).

Many empirical research studies have also assumed this model: examples are Hetherington (1993), who investigated psychological well-being in Accident and Emergency staff, Caplan (1994) who looked at stress in consultants, general practitioners and managers, Hipwell et al (1989) who looked at nursing stress, and Rees and Cooper (1990) who surveyed a range of health workers.

A common theme in these articles, papers and books is the need to be "stress-fit", to be able to identify and manage one's stress. Coping strategies are liberally offered, ranging from time management, prioritizing and delegation to meditation, aromatherapy and counselling. Along with this there is the assumption that working life today is naturally stressful; it is normal to feel stressed, and that if we do not become stress-fit the result will be burnout. Burnout is seen as the result of prolonged work-related stress, often with particular reference

to the human service professions (Burke and Richardsen, 1996). Maslach (1982) defined it as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that occurs among individuals who work directly with people.

A particular sort of representation of stress, or stress discourse, can be seen in all this. It locates stress in our biology, it calls on the individual to improve his or her coping skills, and it decontextualizes stress and its study - there is no historical or political context for either academic or popular theories of stress according to this representation. It also ignores the gendered power relations of most working environments and therefore the differential effects of power, control, and stress in men and women. In addition there is no consideration of how the prevalent stress discourse may in itself influence our thoughts, feelings and behaviour in response to what are identified by it as potential sources of stress. The term "discourse" is used here to refer to a body of knowledge that claims to explain some aspect of the world. Thus the "truth" of stress may be seen as an effect of the stress discourse rather than an objective reality. This rather different approach to the study of stress is part of one of a small number of alternative approaches that can be found in the stress literature but that are generally ignored by that literature. Two of these in particular will be discussed here. One is concerned with seeing the stress discourse in its social, political and historical context and with how that discourse influences our experience of stress, as described above. The other is rooted in the psychoanalytical tradition and is concerned with unconscious but collective ways of trying to cope with workplace stressors.

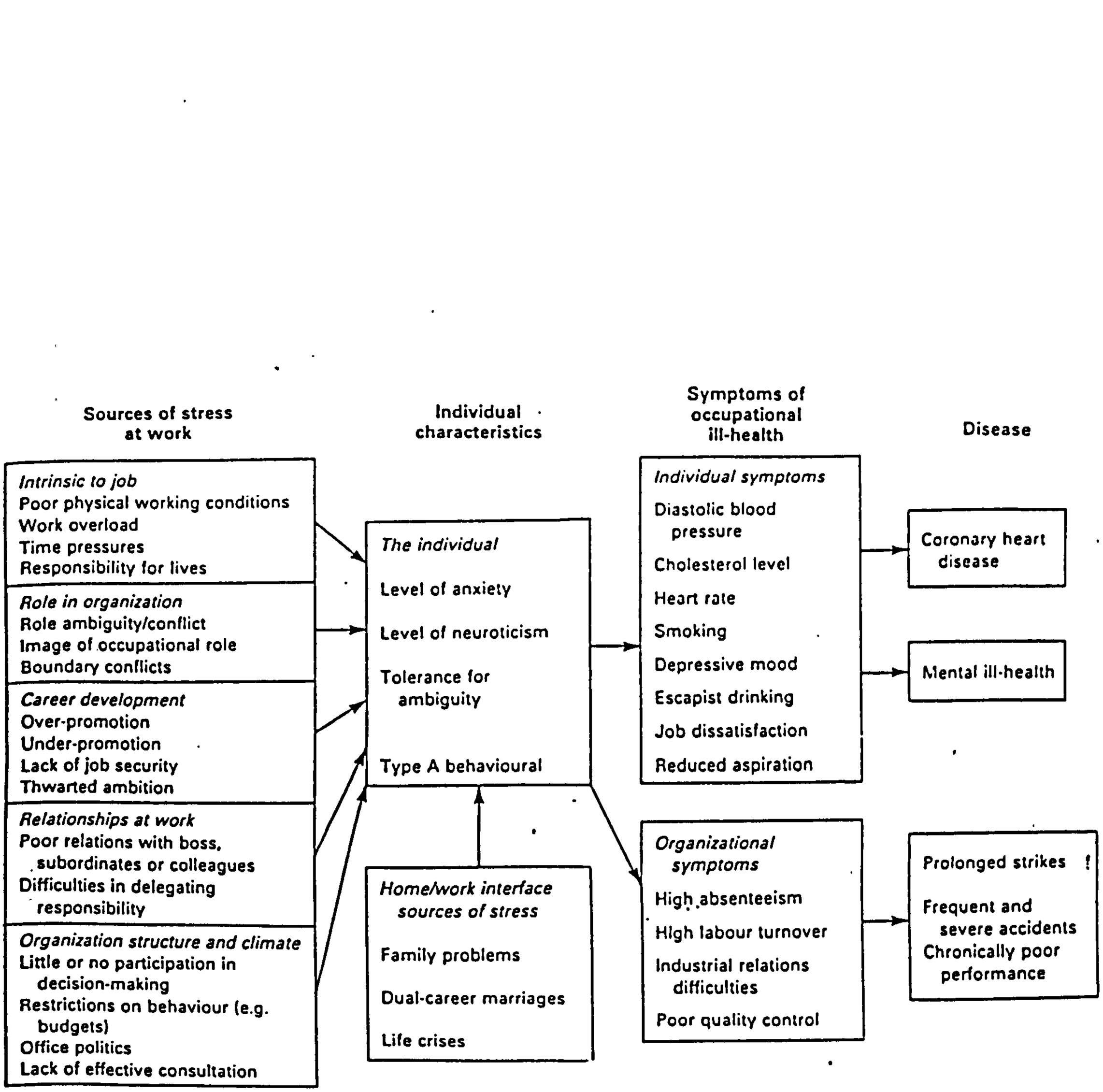

Figure 1. A model of stress (Cooper 1986). (With acknowledgement to Handy 1995).

Power and the Stress Discourse

The first of these approaches can be introduced by reference to a model described by Handy (1995). She uses a method of analysis of the core assumptions of theories suggested by Burrell and Morgan (1979), in which the theories are arranged according to two dimensions, social regulation versus social change, and subjectivity versus objectivity. According to Handy the majority of the work stress literature can be seen to fit the Functionalist paradigm in Burrell and Morgan's model (see fig. 2).

To illustrate this Handy takes the stress model of Cooper (1986) shown in figure 1 and points out that by putting the individual worker in the centre and having him/her subject to stressors from within the organisation and family, there is an implication that stress is "primarily about character defects of the individual worker (evinced by personality traits, type A, neuroticism, etc.) and by her inability to cope with the vagaries of organisational life." (Handy pg. 87). Handy goes on to suggest that this approach emphasises differences between workers rather than collective experience and perception, and thereby both depoliticizes the problem and leads to remedial, regulatory, interventions focused on the individual worker. In addition, the use of medical terminology for the outcomes of stress for both worker and organisation implies an scientific authority and objectivity that ignores the role of human agency in the construction of meanings. Handy acknowledges that later models (e.g. Payne and Firth-Cozens 1987) do take subjectivity into account, but points out that because their focus is on the primacy of private historical experiences in the construction of meaning, and they ignore the current social environment, they remain regulatory of the individual, fitting into the Interpretative sector in figure 2.

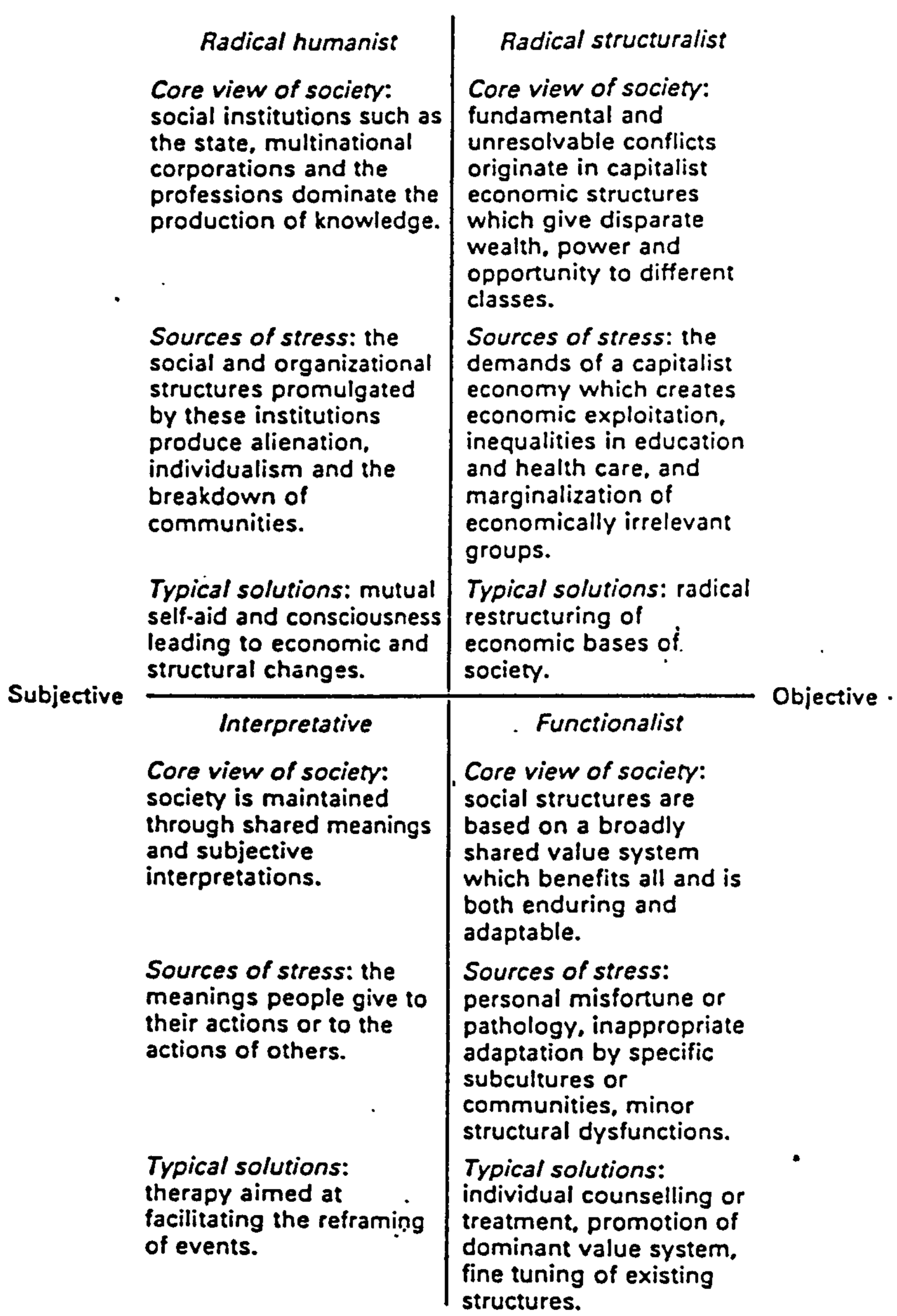

Figure 2. Paradigmatic views of occupational stress (Burrell and Morgan 1979). (With acknowledgement to Handy 1995).

This is demonstrated by a later paper of Cooper's (Rees and Cooper, 1990) in which the authors, after reviewing the many potential stressors involved in health services work, write:

"Any list of stressors will not have a uniform effect on individuals. People bring along their differing personalities to work and two personality characteristics have been recognized as important predictors of response to pressure.....At one extreme, some individuals will interpret events as being substantially due to chance, with their own actions being largely irrelevant.....such individuals are considered as having an external locus of control. At the other end of the continuum are persons who believe that events are under their control.....the evidence suggests that the more control individuals feel they have, the less their perception of stress. The second personality attribute of note is Type A personality.....which has been found to be a significant predictor of stress related illnesses."

The authors go on to provide data demonstrating that health service workers experience greater levels of stress than their counterparts elsewhere, and believe that they have less control over their work. (Interestingly in this study, sickness rates did not appear to be good indicators of stress at work in the health services. Perhaps this is an additional indicator of a perceived lack of self-efficacy with respect to the working environment - a belief that one cannot even take control of one's well-being by taking time off.) The paper concludes with the statement that "It will not be sufficient to only establish counselling services for staff who fall victim to stress, but requires a response that aims to reduce or eliminate unnecessary stress by for example training managers in how best to structure work, give praise, etc." Whilst this recommendation is admirable, and the paper itself pays due attention to subjectivity, as a whole the authors see this as individual and private, and therefore amenable to change by a sort of cognitive therapy, aimed at a reframing of experiences.

The regulatory nature of much of the stress literature is explored further by Newton (1995). He draws on the work of Foucault, who showed the role of observation and surveillance in producing knowledge, which then gives power. This is a reciprocal relationship though; "power and knowledge directly imply one another" (Foucault 1979). Psychology is

seen as one of a number of disciplines that attempt to be the psychical equivalent of Bentham's panopticon: to allow observation without being observed. Foucault explored this in relation to sexuality, showing how a discourse of normality and abnormality developed and was linked with "the task of telling everything", from the Christian confessional to the analyst's couch (Foucault 1981). Newton applies his ideas to the stress discourse, pointing out that "as with sexuality, stress can be seen as reflecting a concern with controlling life.....Just as the individual in Victorian society was impelled to guard against the possibility of perverse sexuality, so the individual in the stress discourse must guard against the dangers of abnormal strain and the possibility of burnout." (1995: 65). Through employee counselling a panoptic view of the workplace is possible: the innermost thoughts of the worker are made observable and therefore potentially controllable, and at the same time the worker is told by the discourse that this is for their own good.

Foucault's ideas are important here because in traditional Marxist accounts the worker is seen more as a passive recipient of a false consciousness, an ideological discourse through which the ruling class maintains its position. The individualised, apolitical and ahistorical representation of stress can be seen as a reflection of that false consciousness, preventing us from seeing the part played by class or gender power relations in work and so from finding a true consciousness. This approach has difficulty with explaining why we so actively engage in such repressive discourses. What Foucault suggests is that *all* is discourse, and that any attempt to stake a privileged position, to say "We are right" or "This is true", just demonstrates the way any supposed truth is intimately linked to the assumption of power. There is no true reality for Foucault; instead we co-create discourses that help us to see aspects of ourselves in different ways. The stress discourse provides us with one sort of explanation, and one set of procedures for 'coping', but any notion of being 'stress-fit' only makes sense *within that discourse*. Also, however, it is not that we are subjected to that discourse, according to Foucault; rather that we actively participate in it. The question then becomes why this discourse, and why at this time?

Newton (1995) makes a couple of suggestions here. Firstly, he points out that major health concerns of modern life such as cancer and heart disease are inadequately explained by medical discourse. A discursive space was left that the stress discourse has occupied. Because it is not

possible to clearly see stress from the outside, because it is a subjective experience, because it is never totally knowable, it is potentially everywhere. Therefore when someone dies of a heart attack, it is always possible to reconstruct their illness as stress-based. Secondly, Newton suggests that the stress discourse fits well with discourses of modernity and change, in which we are told that we must embrace change and measure our success by our ability to adapt. The stress discourse "reinforces the normality of environmental change because it portrays an image of people being able to cope with any kind of change provided they are stress-fit. In addition it emphasises how the problem lies not with the rate of change itself, but rather with the phylogenetically outmoded patterns of individual human behaviour.....we must develop flexibility by turning the 'threat' of change into 'opportunities'" (page 67).

Miller and Rose (1990) have also discussed how the notion of the autonomous, self-responsible healthy individual, guided in their lifestyle choices by the injunctions of the stress discourse, has linked with the discourses and politics of individualism, enterprise and change of recent years. Thus there has come about an alignment between the individual, the organisation, and the state.

In these ways, then, the stress discourse has admirably filled a gap in the ways available to us in which to 'know ourselves', and thus allows us to actively participate in our own and others regulation in the workplace. On the one hand, the stress discourse can be seen as a celebration of the healthy life; on the other, however, it is deployed and functions in workplaces characterised by, as Newton puts it, 'good old-fashioned coercive possibilities'.

An example of a piece of stress research in the health workplace that acknowledges this, both in relation to the workers and their clients/patients, is the exploration of stress in psychiatric nurses by Handy (1990). Handy avoids the regulatory potential of most such research by attending to the social and political context and the power relations of the work being studied. The stress and distress seen in the staff are seen to result from fundamental contradictions in their role, which involves both the control and the care of their patients. Much of the nurses' activities were to do with social control, but this conflicted with their self-image as carers and led to anxiety. Attempts to be more therapeutic in their relationships with patients by newer nurses often

failed, partly because of lack of training and experience but also because of the overall ward and hospital culture of control and smooth running. These nurses then retreated to more control-orientated relationships themselves in order to avoid feelings of failure and insecurity, so completing the circle. In this context, stress management interventions based in the conventional stress discourse would serve both to obscure the situational contradictions for the staff and to increase the potential for the coercive and controlling use of power, of management over nurses and nurses over patients. Instead, it is necessary to open up discussion of these issues *outside* of the stress discourse in the training and support of these staff members.

The Unconscious and Stress

The second example of an approach to workplace stress that differs from the mainstream comes from the psychoanalytic tradition. This is the work of the Tavistock Institute of Human Relations and the Tavistock Clinic Consulting to Institutions Workshop, and is exemplified by the study by Isabel Menzies Lyth and colleagues of the nursing service at a London hospital (Menzies Lyth, 1988). This study will be described first, and then the ideas on which it is based, and other examples of their use in this field, will be explored.

The hospital in question had asked for help because the system for allocating student nurses to wards was in danger of breaking down under high drop-out rates and the competing pressures of training and staffing requirements. Menzies Lyth took this as a 'presenting symptom' and began an intensive programme of individual and group interviews and observations. As this qualitative research process proceeded,

"our attention was repeatedly drawn to the high level of tension, distress and anxiety among the nurses. We found it hard to understand how nurses could tolerate so much anxiety, and, indeed, we found much evidence that they could not.....we came to attach increasing importance to understanding the nature of the anxiety. Its relief seemed to us an important therapeutic task and, moreover, proved to have a close connection with the development of more effective student-nurse allocation." (p.45).

What Menzies Lyth found was that in order to cope with the nature of their work, which routinely involved dealing with death and the dying,

having intimate contact with patients, etc., the nursing body had developed 'social defence systems' based on primitive modes of coping with stressors. These were an attempt to externalise and give objective reality to individual characteristic defence mechanisms, and:

"developed over time as the result of collusive interaction and agreement, often unconscious, between members of the organisation.....The socially structured defence mechanisms then tend to become an aspect of external reality with which old and new members of the institution must come to terms." (pg.51).

The attempt to come to terms with the ways of working engendered by this socially created view of reality based on unconscious primitive defences in itself produced much anxiety and stress, and led to high sickness and drop-out rates, especially among the more competent students. The social defences included splitting up the nurse-patient relationship, detachment and denial of feelings, reducing decision-making by ritual task-performance, reducing responsibility by checks and counterchecks or by collusive social redistribution or by delegation to superiors, and avoidance of change.

Theoretically the work of Menzies Lyth and colleagues owed much to Bion, for whom knowledge about oneself was always dynamic, changing and provisional, and constituted within a group. Bion called this the 'K link' (Bion 1962). In situations of trauma or breakdown of boundaries, however, we are tempted to see knowledge as something fixed and permanent, as something that we can posses and give away, to help us evade the painful or frustrating experience. We try to 'offload'. Bion called this 'minus K' and saw it functioning in institutional settings as a way of trying to cope:

"Minus K, as well as being a mass of non-knowledge, is also an injunction 'not to know', and a celebration of deliberate and studied stupidity, the pushing away of knowledge. To avoid knowing is also to avoid responsibility, and so the evacuation of knowledge can operate as an efficient shared defence against information that is threatening." (Parker 1997, pg. 43)

Thus the structured and continual relaying of useless information from nurse to nurse, from shift to shift, that Menzies Lyth identified, has been seen by Bell (1996) as an example of minus K, the offloading by

someone of things they 'know' but do not want to know, and which it will not help the recipient to know.

Although Menzies Lyth went on to look at ways of intervening to improve this situation, the significant point here is that her analysis sees the stressed nurse as someone who can only be understood in a social context of shared experience.

Menzies Lyth's study is well known in some circles in health care, but the model developed at the Tavistock has continued to be used by a number of researchers and consultants to elucidate the unconscious processes operating in workplace difficulties and stresses. Little of this can be seen in most of the popular stress management literature, however.

The model is based on the work and ideas of Bion with groups as indicated above, and on that of Klein with individuals. From Klein the concepts of the paranoid-schizoid and the depressive positions, and the processes of projection and projective identification, have been taken and applied to understanding how individuals and groups under stress in the workplace react: "Projective identification refers to an unconscious interaction in which the recipients of a projection react to it in such a way that their own feelings are affected; they unconsciously identify with the projected feelings.....It is through this mechanism that one group on behalf of another, or one member of a group on behalf of the other members, can come to serve as a kind of sponge for all the anger or depression or guilt in the staff group. The angry member may then be launched at management by the group, or a depressed member unconsciously manoeuvred into breaking down and leaving. This individual not only carries something for the group, but may be used to export something which the others then need not feel in themselves." (Halton, 1994).

From Bion has come the idea that groups, as well as working on their primary task or tasks, may also display an unconscious tendency to try to avoid such work. This latter tendency he termed basic assumption mentality, and he identified three types, each with its own complex of thoughts, feelings and behaviour. A group dominated by basic assumption dependency will behave as if its primary task is to satisfy the needs of its members, and look to the manager to care for and protect the group from the stress of the real task. One dominated by basic

assumption fight-flight will be obsessed by enemies or dangers outside the team, and expect the manager to devise actions to defeat or escape from those rivals. A team dominated by basic assumption pairing will have the unconscious collective belief that whatever the present problems, a future event will solve them, perhaps by some alliance forged by the manager. Bion (1961) points out, however, that these states can be used constructively: basic assumption dependency is encouraged in hospital patients in order for treatments to be given; basic assumption fight-flight in the military, and so on. Unfortunately these situations, when pressures mount, can degenerate into aberrant forms. Basic assumption dependency degenerates into a culture of unquestioning subordination; basic assumption fight-flight into paranoia and divisiveness; and basic assumption pairing into a culture of collusion. It is in these ways that the unconscious but collective behaviour of the members of teams under pressure in the workplace can often be explained.

As well as the early study by Menzies Lyth already described, the application of these ideas can be illustrated by two more recent papers, which also have the virtues of referring both to political influences external to the workplace itself, and to gender issues, both areas sometimes ignored in this approach. The first is an analysis of institutional stress in the health and education services by Halton (1995). In this paper the author suggests that the radical changes that have taken place in recent years, especially in the health service, can be seen as an attack on the negative or aberrant aspects of a basic assumption dependency culture and the idealised half of Klein's paranoid-schizoid position, both of which involve an unquestioning belief in the protective care of an idealised altruistic provider. That dependency culture also however offered for the staff a channel for the expression of an altruistic vocation in addition to the earning of a living.

The remedy for the shortcomings of the dependency culture is seen as market forces. As well as promoting efficient use of resources, market values encourage self-reliance and productivity. Unfortunately they can also encourage the aberrant side of the fight-flight basic assumption state and the persecutory half of the paranoid-schizoid position, leading to paranoia, self-interest, division, and marginalization of others. Halton describes this as a move from a culture contaminated by the delusion of

total social provision to one affected by the opposite delusion, that of alienated self-sufficiency.

Bion suggested that "The essential point about organisations is that they should be suitable both to the external aim and to the manipulation of the basic assumption that such a pursuit is most likely to evoke" (1961). Halton points out that for a health service organisation, which must meet the dependency needs of patients, it is the basic assumption dependency state which is most consonant. Whilst a degree of competition for resources and clinical excellence is healthy, it should be managed and contained so as not to interfere with the trust and collaboration needed for the primary external task of caring, or with the vocational motivation of the staff. Instead what have been seen are relationships dominated by survival-anxiety in an internal market whose structures and values are at variance with the dependency values needed for client work. The result has been confusion and increased stress in staff.

The second example is a paper by Dartington (1993) in which the author returns to the theme of unconscious but collective sources of stress in hospital nursing explored by Menzies Lyth a number of years earlier. Dartington starts with the often observed expectation in contemporary nursing that nurses should not think, in the sense of reflecting on practice, and the way in which they are often seen to collude in this unknowingness. She acknowledges the part played by gender issues here, but "while general nurses' working so consistently in a 'female' or 'maternal' role is highly significant in many ways, it has been my experience that nurses feel themselves to be oppressed not by men *per se*, but by social systems."

Dartington then describes her own unhappy experiences as a student nurse twenty-five years ago, and her more recent experience, as an organisational consultant with the Tavistock group, of setting up weekly discussion groups for the nurses in a large teaching hospital and supporting the nurse tutors who would lead the groups. What she found was that the tutors after a while started to feel unsettled and uncomfortable, and to experience feelings of disillusion and helplessness; they began to miss meetings or to refuse to acknowledge the degree of stress and anxiety in the student nurses. It was as if the pain and distress of the work was being pushed upwards into another part of the nursing system, and that the students' fear of the impossible

demands that would come from direct personal contact and attachment to patients was being mirrored in the tutors withdrawal from their students. Dartington explains it thus: "What I, the tutors and the students were all experiencing at first hand were the unconscious assumptions of the hospital system, which were that attachment should be avoided for fear of being overwhelmed by emotional demands that may threaten competence, and that dependency on colleagues should be avoided. One should manage stoically, not make demands on others, and stifle one's individual response. If we consider the institution as the patient, it is as if emotional dependency is experienced as the most dangerous and contagious of diseases.....the only known method of prevention is stoicism, which is administered by example and washed down with false reassurance. Since the patient is already seriously infected, by virtue of their institutionalised role, he or she must be kept at a courteous but safe distance."

The author goes on to describe some of the defences used in order to work in such a setting, and the ways in which the negative and collusive aspects of these defences cause the unknowingness, disempowerment, and anxiety so often experienced: "The intense emotions aroused by the containment of suffering, death and fear, are felt to threaten not just efficiency but the fabric of the institution itself. The front-line workers must be silenced, anaesthetised, disempowered."

Inherent in both of the accounts described above is the notion that health care staff bring their own unconscious needs to their work, and that stress arises, in part, from these needs being either blocked or inhibited, as in the move from a dependency culture to a market one in which vocation is marginalised, or repressed as in the hospital culture described by Dartington above. As one would expect from the users of a psychodynamic model, this is an area that the Tavistock tradition has not left unexplored. Roberts (1994) describes how the Kleinian notions of guilt and reparation play a part in work choice, and how, because in the health professions the reparative activities are carried out in direct relation to other human beings, the work situation may closely resemble early-life situations that the worker may still unconsciously be striving to deal with. In addition, it is the worker's self that is seen as the major tool for producing benefit for the client: "By offering themselves as the instrument of change, workers unconsciously hope to confirm that they have sufficient internal goodness to repair damage in others." Failure, or only limited success, can be felt as demonstrating inner deficiencies and

be a great source of distress; negative defences are adopted both individually and institutionally and stress and anxiety result.

This acknowledgement in the psychodynamic approach of the part played in stress at work by what the worker brings with him or her should not be confused with the ways in which the mainstream stress discourse refers to the shortcomings of the stressed worker. Rather than suggesting a lack of 'stress-fitness' that is solely an individual fault and responsibility, the psychodynamic approach acknowledges unconscious needs that arise out of normal developmental processes and that have important positive functions. It is when these lead to defensive and collective institutional processes, because of the nature and pressure of the task, that difficulties arise.

Although this approach avoids the decontextualisation of stress, it is not without its own problems, as intimated previously. External or political influences on the tasks and structure of health service institutions tend to be underemphasised in comparison to the suggested pathologies of the institutions themselves in much of the work, although the analysis of recent changes by Halton described above tries to redress that balance. Gender issues are also often absent from the analyses, although here again the study by Dartington quoted above does acknowledge this. Evans (1998) in a critique of some of the writing in this tradition points out that the model does lose some of the strong foci of psychoanalytic thought when exploring organisational life and behaviour. The central place of gender is one; the insights of attachment theory another. Why, for example, Evans asks, do people continue to work for and support institutions or systems that abuse them? More generally, Evans criticises the Tavistock work for being too isolated from other approaches; for using, in its own terms, omnipotent defences against the uncomfortable reality of competition from other models. Perhaps this goes some way to explain the failure of the Tavistock approach to influence the popular stress discourse, but the 'fit' between that discourse as it stands and others in contemporary culture is also significant here, as was discussed in the previous section.

Stress Interventions

Turning now to interventions aimed at reducing stress, Newton (1995) refers to three forms of stress management: employee assistance programmes; stress management training; and stress intervention. The first consists of the provision of staff counselling services, either internally or externally; the second refers to courses on coping skills such as time management and relaxation; and the third to interventions at organisational or systems level. Cox et al (1990) calls these tertiary, secondary and primary level interventions, respectively. The secondary and tertiary levels figure far more in the literature on interventions, both academic and popular, than does the primary or systems level.

At the tertiary, individual counselling, level, a line of development can be seen that begins in 1936 with the Hawthorne project at the Western Electric works in Chicago. At its peak 64 full-time counsellors provided the service to a workforce of 30,000. A non-directive approach was used, but certain underlying assumptions can be seen in the way the project operated that have influenced the development of employee counselling since. For example, whilst most of the problems that were brought to the service were closely related to working conditions, the counsellors adopted the psychoanalytical distinction between presenting and underlying problems, and attempted to help the clients to examine their ideas, beliefs and fantasies about their situation and so modify their perceptions. Newton (1995) quotes the head of the service as saying "It is not unusual for an employee to start out making extreme accusations of unfairness against an individual and at the end of the interview to remark 'well, I guess he's got his problems and it's not so bad after all'" (pg. 102). He goes on to call the service "an important stabilizing force."

It can be seen that such a service had the potential for transforming legitimate industrial grievances into individual psychological problems that could then be reframed; a most useful aid to management. Whilst there is no evidence that the Hawthorne management deliberately used the counselling service in this way, reports at the time spoke of the service allowing management to enter not only the worker's social, financial and intellectual life, but also to have "his most intimate thoughts and desires laid bare to a representative of the company", a phrase reminiscent of Foucault (Wilensky 1951).

As Newton (1995) points out, there are many similarities between a Hawthorne style employee counselling service and stress management programmes, Cox's secondary level of intervention. Firstly, with both there may be an element of coercion since advancement in the organisation may be seen to depend on acceptance and participation in such services and programmes. Secondly, both are designed to reduce tension and promote the idea of the effective coper, the employee who understands stress to be a function of the individual and who uses their coping skills to change work stressors into "exciting challenges". Because this is done individually, the commonality and collective nature of distress, frustration or anger is not seen or expressed. This fits neatly with a management culture of individual responsibility, good coping and high performance as measured by objective indicators.

As indicated above these levels of intervention are seen more commonly in the literature than is the primary, or systems, level. Typical of many articles in the nursing press, for example, is one entitled "Support Yourself" (Tschudin 1990), in which nurses are exhorted to look to their own 'personal luggage' and to their support systems in order to cope with the stresses of their work. Orton (1996) counts the cost of stress in the NHS and particularly in General Practice, and says that the responsibility for its reduction rests with the employer, the professions, and the individual, but then talks solely about ways of increasing the coping abilities of individuals, such as the counselling service for sick doctors and stress management modules during training.

Some authors do refer to primary level interventions but often this is in theory rather than practice. For example Dionne-Proulx and Pepin (1993) discuss ways of developing resilience to stress but then state that "By far the most effective means of managing stress in the workplace is to eliminate the stressors. To achieve this management strategies must be proactive rather than reactive with respect to the organisational environment." They suggest strategies such as specifying the terms of the psychological contract between organisation and worker, matching worker and environment much more carefully, improving preparation and education, increasing flexibility of hours and shift patterns, providing child-care services, and increasing the autonomy and decision-making latitude allowed to the health service worker. They then acknowledge that "such action will tend to eliminate or reduce organisational stressors and improve productivity and quality of life at work. However organisational action with respect to the working

environment tends to be limited". In similar vein Palmer (1995) advises intervention at all three of Cox's levels but says that this is not usually possible "due to a variety of reasons" and goes on to describe a number of intervention programmes he has carried out that are focused primarily at the individual employee. More recently still, Fraise (1996) describes a project to assess stress levels in an NHS Trust and to design interventions. The final recommendations include a staff counselling service, self-help stress-management material, and consultancy on the psychological aspects of the implementation of changes in the workplace, but to date only the first two of these seem to have been implemented.

Generally, then, we find that stress interventions reflect the individualized, decontextualized, view of stress seen in most of the literature, and therefore tend to be regulatory, rather than empowering, in function. Because of this little real change in the sources of stress takes place. Strawbridge (1997) asks "What of situations where, as counselling psychologists, we are expected to work with people who are not coping with stress at work, but are not expected to make any assessment of the organizational contexts of stress? We are frequently implicated in individualizing problems in this way." Fineman (1995) in discussing stress in psychiatric nurses, and echoing Handy's study already discussed, concludes "The form of the organization's policies and social structure is, therefore, critical in comprehending stress - as, indeed, are the wider community policies and laws which frame the direction of the organisation. If either remain unexplored, there may be little alleviation of the sources of the nurses' stresses."

The Contribution of Counselling Psychology

In summary, the literature on workplace stress in the health professions presents a picture in which stress is seen as the result of the interaction between person and environment, as mediated by personality factors and cognitive style, and this contributes to a cultural view that is reflected in stress reduction interventions that are aimed primarily at the individual. These can easily take on a regulatory function and inhibit attempts to change the sources of stress, which would involve examination of social and power inequalities. The prevalent stress discourse also fits well with management needs for a workforce that, at least in the short-term, copes itself with whatever stresses it is put under. The longer-term damage to staff is, however, clear to see.

Two alternative views are described, in which the collective nature of the experience of stress is taken into account and which call for interventions at a corresponding systems level. The reluctance of health organisations to allow this may be explained by unconscious denial of their 'shadow side' (Egan, 1994, describes the shadow side as all the important activities and arrangements in an organisation that do not get identified, discussed or managed. It involves the covert, the undiscussed and the unmentionable), or by the persuasive effect of the prevalent discourse, but as Menzies Lyth says of her nursing study,

"It is clear that there is no simple solution; if there were, it would have been introduced long ago. The ultimate solution must be a restructuring of the system of work organisation and training, so that it incorporates a different kind of social defence system based less on evasion." (1988, pg.113).

This is perhaps the major challenge for the psychologist working in this setting, who must attempt to help the organisation towards systems that are more supportive of the psychological and social needs of its employees, whilst working in an environment in which (often crude) measures of performance are seen as the bottom line. This requires a humanistic allegiance to the value of the individual employee's experience plus an awareness of social and organisational dynamics. Perhaps the counselling psychologist is well placed to undertake this task by virtue of training and experience, and indeed there is work emerging from counselling psychologists in this domain that encompasses the range of discourses discussed above and gives due weight to the often complex issues involved. As Carroll (1997) says in discussing counselling services in the workplace: "The counselling room is filled with other individuals, and the systems, groups and organisations that are part of the lives of both participants.....Counsellors who work in organisational settings need to understand the dynamics at work within organisations. All too easily counsellors can be seduced into helping individuals manage stress in their lives (as if these individuals were totally responsible for managing stress) while ignoring the impact of the organisation...." Carroll goes on to discuss the role conflicts or 'boundary issues' that have to be considered when counsellors do seek to work with areas of the organisation itself and not just individual employees. He raises the possibility that some roles, while being beneficial in themselves, may be

incompatible when working within an institution, but he also reminds us of the distinction made by Egan and Cowan (1979) between 'upstream' and 'downstream' help. It is better to go upstream and help sort out a system than to haul out drowning workers downstream, resuscitate them, and send them back up into the dysfunctional system.

This point was made early on in the development of counselling psychology in this country by Woolfe (1993), who described the experience of consulting to a building society that was finding high levels of stress in its staff after a period of increased competitiveness, mergers and staff appraisals had coincided with an increase in the frequency of armed raids on society branches. Woolfe found an expectation that the consultants would recommend the establishment of a counselling service, rather than explore the systems and policies of management. The former, although of benefit in itself, could also be seen as individualising difficulties and diverting attention from problems at a systems level. In fact a number of organisational policies and procedures were identified that were contributing to low morale and high anxiety. Woolfe concluded by encouraging counselling psychologists to work 'upstream' so as to influence the organisational culture, and not just as clinicians working with individual clients.

This theme has also been taken up more recently by Walton (1997) in a discussion of the relevance of organisational culture for the counselling psychologist. Walton makes use of a number of models and approaches in exploring corporate systems and cultures, and does not ignore the irrational or unconscious aspects of institutional behaviour. He quotes some of the Tavistock work on the social structuring of psychological defences within institutions and acknowledges that this has considerable significance for the counsellor working with clients in the institution that employs them. Walton also refers to theories of attachment (see Evans, above) in discussing the way in which employees can seem to 'live' for their institutions, and comments on the unconscious and unresolved process that we take with us into our work. What is significant in Walton's writing is the openness to a range of models, including systems theories, management theories and psychodynamic ideas, and the synthesising of their insights into a comprehensive account of the impact of organisational culture on the work of the institutional counsellor.

Others within counselling psychology have described how they have attempted to use these more comprehensive models in the design and implementation of services, or in research and evaluation. Tehrani, for example, explains how the Post Office's Employee Support service "integrates the principles of psychology and counselling with those of welfare to produce an organisationally aware employee counselling and support service." (Tehrani, 1997). Of more direct relevance to this review is a study using Grounded Theory of the views and experiences of a number of managers of staff counselling and support services in the National Health Service (Fisher, 1997).

Fisher identified four main categories and a number of sub-categories from her analysis of the interviews with her participants. The first main category was to do with 'counsellor fit', and here the need for counsellors to have "an understanding of conflicts at the individual/organisation interface", particularly in the health service environment, was felt to be vital. The changing and fragmented nature of that environment, the competition for resources, and the hierarchical and controlling management style had to be understood in order to work appropriately and effectively. The second major theme was understanding the role of the provider of counselling services in the NHS, and here holding the balance between conflicting demands and being sensitive to boundary issues was central. The need to be proactive, to influence 'upstream' systems, was seen as a necessity, but the dangers of being used politically and of then being blamed for lack of effect were also highlighted. Fisher uses Menzies Lyth's (1988) work to explain how widespread use of projection of one's own unconscious fears of inadequacy in the face of suffering has led to a 'blame culture' in the health service, in which the staff counselling service can easily become a target from many directions.

Awareness of the culture was the third major theme that emerged in the study, and here the author uses a systems theory perspective to give context to the rivalries, jealousies, conflicts and misperceptions found in health service institutions. Interesting amongst these are the difficulties of operating as a counsellor, working with feelings and relationships, in a culture dominated by the medical model and the medical profession, and the danger of being 'taken over' by the cultural norms. As Fisher's respondents put it: "We mirror what goes on in the organisation unless we are very careful" and "I do not want to become part of the culture.....It is about martyrdom." The fourth main category was to do

with overcoming obstacles and developing services, and here the ability to build relationships with both employees and senior management, whilst maintaining the neutrality and balance referred to above, was a necessary skill. Commenting overall on their services, however, the respondents felt that often they were doing no more than plastering over the cracks. Despite this rather sad conclusion, Fisher's study is, like Walton's above, indicative of the way in which counselling psychologists are bringing a variety of perspectives to bear on this area, and are attempting to give due weight to the conscious and the unconscious, the individual and the collective, the needs and defences existing in both workers and institutions, and the culture and the political and historical contexts of the setting.

Conclusion

The popular discourse of work stress, seen in nursing and medical publications and in many theoretical models, individualises and decontextualises stress, and calls on the employee to take individual action to become 'stress-fit' and able to cope with whatever comes along. An alternative analysis is described above in which the relationships between discourse, power, and regulation in the popular approach are made explicit, and the application of a psychodynamic model is also described, in which the operation of collective unconscious defences against stress and anxiety embedded in institutional structures is suggested. The contribution of counselling psychologists, able to apply these and a range of other theoretical models and approaches to the study and amelioration of workplace stresses, is reviewed. It is from this domain that perhaps the best hope comes of helping health service institutions become healthier places within which to work, but it is a slow process, and is described by a participant in one study quoted above as a 'drip-drip effect'. Despite this, it is a process of great importance for the future health of our National Health Service.

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